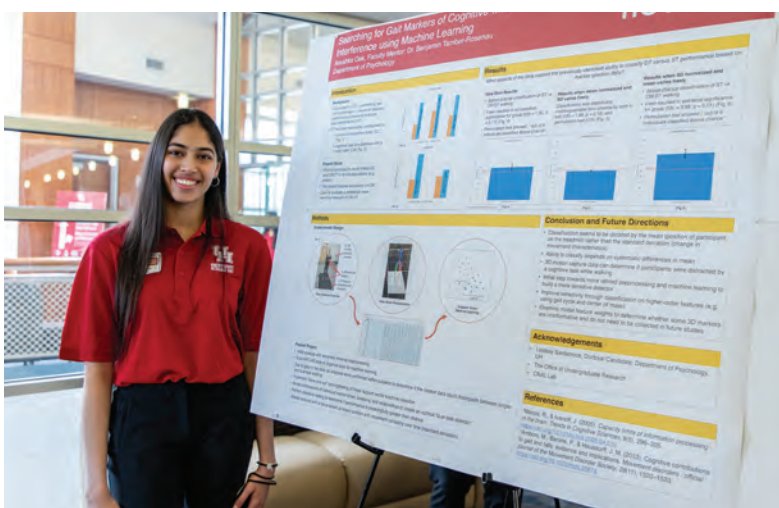


# 2023 UNDERGRADUATE RESEARCH DAY

Elizabeth D. Rockwell Pavilion, M.D. Anderson Library, & The Honors College

Thursday, April 13, 2023      [www.uh.edu/urday](http://www.uh.edu/urday)



# UNDERGRADUATE RESEARCH IS...



## *...for everyone!*

- URD presenters work with mentors from 16 different UH colleges and schools!
- 64% of participants in OURMA programs are Pell Grant recipients.
- A quarter of OURMA student researchers identify as first-generation students.



## *...funded!*

- Scholarships range from \$500 to \$5,000.
- In the last academic year, students received over \$5,000 in OURMA travel fellowships to present their research at national conferences.
- OURMA awarded over \$590K in student scholarships last year!



## *...a gateway to fellowships!*

- Presenters at URD have been named recipients of the prestigious Fulbright US Student Program, Gates Cambridge Scholarship, and Barry Goldwater Scholarship and many other major awards.



## *...supportive of the university!*

- Undergraduate Research supports the university's Carnegie-designation as a Tier One research university.
- Students contribute to cutting-edge, world-class research happening right here at UH!

# SPECIAL THANKS TO...

A special thanks to our campus and community partners for their support of the Office of Undergraduate Research and Major Awards and our undergraduate researchers:

- Office of the Provost
- Division of Research
- College of Liberal Arts and Social Sciences
- Cullen College of Engineering
- Cougar Initiative to Engage
- The Honors College
- Gerald D. Hines College of Architecture and Design
- The Andrew W. Mellon Foundation
- The Writing Center
- UH Libraries
- The University of Texas MD Anderson Cancer Center
- Data Analytics in Student Hands (DASH) and Honors in Community Health (HICH)
- Institute for Global Engagement

# 2023 UNDERGRADUATE RESEARCH DAY

**Thursday, April 13, 2023**

Elizabeth D. Rockwell Pavilion  
2nd floor, M.D. Anderson Library  
The Honors College

**3:30 p.m. – 4 p.m. | Welcome and Remarks to Presenters**

*Location: Elizabeth D. Rockwell Pavilion*

**Diana Z. Chase, Ph.D.**

Senior Vice Chancellor for Academic Affairs, University of Houston System  
Senior Vice President for Academic Affairs and Provost, University of Houston

**Claudia Neuhauser, Ph.D.**

Associate Vice President/Vice Chancellor, Research and Technology Transfer,  
University of Houston

**Athena N. Jackson, M.S.**

Dean of University Libraries and Elizabeth D. Rockwell Chair, University of Houston

**Stuart A. Long, Ph.D.**

Interim Dean, Honors College, University of Houston  
Associate Dean of Undergraduate Research, University of Houston

**Rikki Bettinger, Ph.D.**

Director, Office of Undergraduate Research and Major Awards,  
University of Houston

**4 p.m. – 6 p.m. | Viewing of Student Posters**

*Location: Elizabeth D. Rockwell Pavilion, M.D. Anderson Library, and the Honors College*

The Office of Undergraduate Research and Major Awards thanks the [Office of the Provost](#), the [Division of Research](#), the [Honors College](#), the [Cullen College of Engineering](#), and the [College of Liberal Arts and Social Sciences](#) for their generous and continued support.



# WELCOME

## Welcome to the 18th Annual Undergraduate Research Day!

We invite you to explore, engage in conversation, offer feedback, and get inspired. This collaborative effort between the Office of Undergraduate Research and Major Awards, the Honors College, and the M.D. Anderson Library highlights the diverse range of research projects carried out by University of Houston undergraduate students. The 2023 presenters include students from programs such as the Summer Undergraduate Research Fellowship (SURF), Provost's Undergraduate Research Scholarship (PURS), Mellon Research Scholars Program, Research for Aspiring Coogs in the Humanities (REACH), and many others who conducted research under the guidance of University of Houston faculty in the past year. The energy that makes this event so special is only outmatched by the spirit and dedication the students have brought to their research this year. The number of participants in this year's Undergraduate Research Day increased 35% from last year. We are excited to celebrate the research of UH undergraduates, and they are eager to share their projects with you.

Our presenters have collaborated with faculty mentors from 16 colleges and schools in programs as diverse as Philosophy, Pharmacological and Pharmaceutical Sciences, Art History, and Chemical and Biomolecular Engineering. Faculty at the University of Houston are dedicated to mentoring students in the pursuit of advancing knowledge in their fields and are always looking for ways to advocate for students' success. The research posters offer an invitation to discuss big ideas, granular analyses, and complex problems. Undergraduate Research Day provides the opportunity for undergraduate researchers to connect with other students, faculty, staff, and professionals in industry and gain feedback on their research. We encourage you to speak with presenters about their work.

In the last year, the Office of Undergraduate Research and Major Awards (OURMA) has supported over 310 faculty-mentored student research projects and awarded over \$590K in student scholarships. This would not be possible without the generous support of the Office of the Provost and the Division of Research whose dedication to student success enables students at the University of Houston to pursue funded research opportunities. We are also always seeking new ways to expand research opportunities while addressing society's urgent questions. With this in mind, and thanks to funding provided by Phillips 66, we launched the Energy Scholars Program this spring which provides a summer and fall research experience for students of any discipline working on energy-related research. Our funded undergraduate research programs allow students the necessary time and resources to delve deep and better understand and address some of Houston's, and our world's, most important issues.

UH students are also well-positioned as fellowships applicants. In the last year, our students have been named recipients of the Phi Beta Kappa Key into Public Service Scholarship, Voyager Scholarship, Amgen Scholars, Critical Language Scholarship, and NSF-GRFP. With 10 Coogs named as Fulbright recipients for 2022-2023, the University of Houston was again named a Top Producing Fulbright Institution, the third time it has received this prestigious designation in the last four years. In the lab and the library, in Houston and across the globe, our Coogs dare to dream big, and their successes demonstrate why University of Houston is a Carnegie-designated Tier One research university.

We are heartened by the increase in student participation and funding for undergraduate research opportunities, even amid the challenges of the pandemic. With these increases and in support of OURMA's mission to provide faculty-mentored research opportunities and advising on fellowships and major awards to undergraduate students, OURMA welcomed new staff members in 2022. Deborah Reyes joined as a Program Manager in September and is completing her M.Ed. in Higher Education this year. Students interested in getting started in research and in the PURS and SURF programs should contact Deborah for more information. Livia Garza joined the office as a Program Manager in November. An alum of both the Honors College and the Mellon Research Scholars Program, Livia holds a M.S. in Library and Information Science from the University of Illinois Urbana-Champaign. Students interested in getting connected with OURMA opportunities through our listserv and social media, as well as those interested in the HERE program, should contact Livia for more information. We were pleased as well to welcome Esraa Wasel to our team as a student worker; Esraa is a member of the Honors College graduating this spring with a Bachelor's degree in philosophy. A former Mellon Research Scholar and preparing for graduate study, Esraa will be presenting her research on moral encroachment at this year's URD. She also has a published article in the third issue of *FrameWorks: A Journal of Undergraduate Research in the Interdisciplinary Humanities*. We feel fortunate to have a dedicated team working to ensure opportunities for undergraduate researchers at the University of Houston.

The Office of Undergraduate Research and Major Awards would like to thank the Office of the Provost, the Division of Research, the Honors College, UH Libraries, the Cullen College of Engineering, the College of Liberal Arts and Social Sciences, and many other colleges and departments on campus for their support of undergraduate research programs at the University of Houston. The programs featured here today would not be possible without the support of our campus partners.

We know that students who engage in undergraduate research are better positioned to assess and address the pressing issues of our time. Participation in undergraduate research allows students to hone key research skills and provides a foundation for collaborative problem-solving. We are excited to learn alongside these researchers. Thank you for joining us for this year's celebration of undergraduate research at the University of Houston.



The OURMA Team: Ben Rayder, Stuart Long, Deborah Reyes, Livia Garza, Rikki Bettinger, Esraa Wasel



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UNIVERSITY OF **HOUSTON**

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Thursday, April 13, 2023

4-6 p.m. Poster Presentations

Elizabeth D. Rockwell Pavilion

M.D. Anderson Library

The Honors College

### The Office of Undergraduate Research and Major Awards

University of Houston

The Honors College

M.D. Anderson Library

4333 University Drive, Room 212W

Houston, TX 77204-2001

(713) 743-6433

[UndergraduateResearch.uh.edu](http://UndergraduateResearch.uh.edu)

[undergrad-research@uh.edu](mailto:undergrad-research@uh.edu)

@UHOURLMA

*Booklet created by*

**Julia Brown,**

Manager, Office of Communication,

The Honors College

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# OFFICE OF UNDERGRADUATE RESEARCH AND MAJOR AWARDS



## OUR MA PROGRAMS

### THE HOUSTON EARLY RESEARCH EXPERIENCE (HERE)

is a two-week research program in May intended to orient rising sophomore and junior undergraduates to the fundamentals of conducting research. HERE awards a \$1,000 scholarship. Candidates with at least a 3.5 GPA are encouraged to apply. [uh.edu/here](http://uh.edu/here)

### THE SUMMER UNDERGRADUATE RESEARCH FELLOWSHIP (SURF)

is a full-time, 10-week summer research program for students and provides a \$4,000 scholarship to conduct research under the mentorship of a UH faculty member. Students from all disciplines with at least a 3.0 GPA are encouraged to apply. [uh.edu/surf](http://uh.edu/surf)

### THE PROVOST'S UNDERGRADUATE RESEARCH SCHOLARSHIP (PURS)

is a part-time, semester-long research program and awards a \$1,000 scholarship for students to work one-on-one with a faculty mentor. This scholarship is open to students from all colleges and disciplines. Candidates must have at least a 3.0 grade point average to apply. [uh.edu/purs](http://uh.edu/purs)

**THE MELLON RESEARCH SCHOLARS PROGRAM** is for upper-level students from historically marginalized backgrounds interested in conducting research and attending graduate studies in the humanities. Mellon Scholars participate in a faculty-led seminar series to learn more about research opportunities in the humanities, receive \$1,100 to participate in a two-week camp on

applying to graduate school, earn \$3,900 to conduct a full-time summer research project under the mentorship of a University of Houston faculty mentor, and conclude the program by either completing an independent study or Senior Honors Thesis during their senior year. [uh.edu/mellonscholars](http://uh.edu/mellonscholars)

### THE RESEARCH FOR ASPIRING COOGS IN THE HUMANITIES (REACH) PROGRAM

at the University of Houston is a collaborative effort supported by the Cougar Initiative to Engage and the Office of Undergraduate Research and Major Awards. Awarding a \$1,500 scholarship, REACH provides a year-long introductory research experience for students in humanities disciplines by connecting 12 students to existing research projects at the University of Houston. Students from humanities disciplines are encouraged to apply. [uh.edu/reach](http://uh.edu/reach)

**THE SENIOR HONORS THESIS** is a capstone program for a student's undergraduate career in research. Open to all UH students, participants enroll in 3399 and 4399, a total of six hours of coursework, which is typically applied toward the degree requirements of their major, during their senior year. For more information, visit the thesis website at [uh.edu/seniorhonorsthesis](http://uh.edu/seniorhonorsthesis).

Need more info? Email:  
[undergrad-research@uh.edu](mailto:undergrad-research@uh.edu)



# THE HONORS COLLEGE

## THE HONORS COLLEGE PHILOSOPHY

The Honors College at the University of Houston serves the intellectual needs of gifted undergraduates in more than 100 fields of study. We provide the careful guidance, flexibility, and personal instruction that nurture excellence. We offer the University's finest students ***the best of both worlds*** — the community and advantages of a small college together with the resources and rich diversity of a large research university. Our faculty and staff believe that a university education should offer more than the acquisition of skills for the workplace. The Honors College challenges students to develop the attributes of mind and character that enhance all facets of life.

## HONORS CURRICULUM

Our curriculum is designed to coordinate with all majors and degree plans offered at the University of Houston. You will fulfill many of your University core requirements through Honors courses that take the place of regular required classes. One key sequence of courses, The Human Situation, is team-taught by Honors faculty and is designed to ensure that you are introduced to the great books of the Western tradition. The Honors College also offers seven interdisciplinary minors. For many Honors students, the Senior Honors Thesis represents the exciting culmination of a bachelor's degree. A thesis provides an excellent opportunity for you to work under the direction of faculty in your chosen field of study, applying your skills and knowledge toward the completion of a scholarly or creative project.



## THE HONORS COLLEGE COMMUNITY

### Special Classes and Course Selection

We draw on the talents of the brightest faculty members within the University to provide a wide range of special courses with limited enrollment. Honors courses encourage student participation, interaction, and discussion.

### Membership in a Community

You will enjoy special privileges, including Honors College scholarships, priority course registration, computer facilities, reserved lounge and study areas, study abroad opportunities, and special housing in Honors College residence halls. Many intangible benefits also come with participation in the Honors community — the friendships that develop in the classroom carry over into other areas of student life. We foster an atmosphere of collegiality and a spirit of camaraderie through informal gatherings, social activities, and on- and off-campus cultural events.

### Talented Classmates

When admitted to the Honors College, you will enter the company of the most academically talented undergraduates at the University. Members bring a variety of interests, aptitudes, and ambitions to their studies. Through daily association with other Honors students, you will be challenged to strive for excellence in academics and in character.

Apply Now at [www.TheHonorsCollege.com/apply](http://www.TheHonorsCollege.com/apply)

Contact Information:  
The Honors College  
Office for Student Recruitment  
(713) 743-1766  
[honorsadmissions@uh.edu](mailto:honorsadmissions@uh.edu)









# FELLOWSHIPS AND MAJOR AWARDS



# 2022 UNDERGRADUATE SCHOLARS & MAJOR AWARDS

The Office of Undergraduate Research and Major Awards congratulates the 2021-2022 Undergraduate Scholars and Major Award recipients, finalists, and alternates:

## C.T. BAUER COLLEGE OF BUSINESS

Hamad Khan, Charles B. Rangel International Affairs Graduate Fellowship (Finalist); Thomas R. Pickering Foreign Affairs Graduate Fellowship (Finalist)

## COLLEGE OF EDUCATION

Carlos Fuentes, Hispanic Scholarship Fund (Recipient)  
Maggie Kamholz, BCM SMART Program (Recipient)  
Jordan Pemberton, MD Anderson PCCSM Program (Recipient)

## COLLEGE OF LIBERAL ARTS & SOCIAL SCIENCES

Briana Azad, Critical Language Scholarship (Alternate)  
Heather Butina-Sutton, Critical Language Scholarship (Recipient)  
Joshua Cornelius, Fulbright English Teaching Assistantship Grant, Norway (Alternate)  
Ola Dafaalla, Sumners Scholarship (Recipient)  
Blake Deckard, Critical Language Scholarship Spark (Alternate)  
Ariel Durham, Fulbright English Teaching Assistantship Grant, South Korea (Recipient)

Tatiana Haddad, Boren Scholarship (Alternate); Critical Language Scholarship Spark (Alternate)  
Perla Rae Henderson, NSF GRFP (Honorable Mention)  
Cassidy Lee, PKP Fellowship (Recipient)  
Ayan Mammadova, Critical Language Scholarship (Recipient)  
Hana Mohamad, Critical Language Scholarship (Alternate)  
Sondos Moursy, PBK Key Into Public Service (Recipient)  
Jimmy Nguyen, Critical Language Scholarship (Alternate)  
Paige Quinones, Fulbright Study/Research Grant, Slovenia (Alternate)  
Hannah Reeves, Critical Language Scholarship Spark (Alternate)  
Urvi Sakhuja, Fulbright English Teaching Assistantship Grant, Czech Republic (Recipient)  
Morgan Thomas, Fulbright English Teaching Assistantship Grant, Ghana (Recipient)  
Sandra Tzul, Fulbright English Teaching Assistantship Grant, Mexico (Recipient)  
Paul Vaughan, Fulbright Study/Research Grant, Poland (Recipient)

Cai Wilson, Sumners Scholarship (Recipient)  
Peijun Zhao, Critical Language Scholarship (Recipient)  
Nimra Zubair, Fulbright English Teaching Assistantship Grant, Bulgaria (Recipient); Critical Language Scholarship (Alternate)

## COLLEGE OF NATURAL SCIENCES & MATHEMATICS

Hufsa Arain, BCM SMART Program (Recipient)  
Robert Michael Comas, NSF GRFP (Honorable Mention)  
Shivi Garg, BCM SMART (Recipient)  
Tamara Gonzalez, Obama Voyager Scholarship (Recipient)  
Kristen Harris, MD Anderson PCCSM Program (Recipient)  
Gabrielle Kostecki, Amgen Scholars Program, (Recipient)  
Jing Ming Lim, BCM SMART (Recipient)  
Ehson Maleki, BCM SMART Program (Recipient)  
Bryan Medina, BCM SMART Program (Recipient)  
Rael Memnon, MD Anderson PCCSM Program (Recipient)  
Arian Mohammadyar, Critical Language Scholarship (Alternate)

Thai Nguyen, Critical Language Scholarship Spark (Recipient)  
Anushka Oak, Fulbright Study/Research Grant, Spain (Recipient)  
Amanda Pascali, Fulbright Study/Research Grant, Italy (Recipient)  
Hai Pham, Fulbright English Teaching Assistantship Grant, Taiwan (Recipient)  
Kala Pham, MD Anderson PCCSM Program (Recipient); Harry S. Truman Scholarship (Finalist)  
Phillip Pham, Fulbright English Teaching Assistantship Grant, Taiwan (Recipient); NSF GRFP (Honorable Mention)  
Jewel Phan, JET Program (Recipient)  
Heeba Rahman, BCM SMART Program (Recipient)  
Daniela Tover, MD Anderson PCCSM Program (Recipient)  
Varshini Vakulabharanam, MD Anderson PCCSM Program (Recipient)  
Mielad Ziaee, Critical Language Scholarship Spark (Alternate)





# OUTSTANDING FELLOWSHIP MENTOR AWARD

The Undergraduate Scholars and Major Awards Celebration was held on April 18, 2022 and hosted by the Office of Undergraduate Research and Major Awards (OURMA). The University of Houston Outstanding Fellowship Mentor Award was featured in the Celebration and awarded to **Mark Sursavage**, Executive Director of the UH Writing Center.



## MARK SURSAVAGE

Dr. Sursavage was recognized for his contributions to supporting student writing for national fellowships and undergraduate research at the University of Houston. His work extends to targeted programming for the Fulbright U.S. Student Program, Boren Awards, Mellon Research Scholars, and the Research Experience for Aspiring Coogs in the Humanities (REACH). For REACH, specifically, Dr. Sursavage helps students investigate the landscape of academic writing on campus as part of the Mapping Undergraduate Writing project.

Under Dr. Sursavage's leadership, the UH Writing Center has long-supported the research efforts of undergraduates. The UH Writing Center offers the Writing Studio program to students in the Senior Honors Thesis program. Writing Studios provide more than an accountability group; they create a small, supportive forum through which students can test their ideas and writing during their thesis year. Thesis students are guided to reflect on their own writing and revision process, and students who participate in the Writing Studio program find a writing community and deepen and advance their own thesis experience.

In all of his these areas, Dr. Sursavage encourages students to channel their enthusiasm into intellectually disciplined pieces of writing that reflect who they are. He emphasizes personal connection in conversations about academic discourse and motivation for study. In turn, the undergraduate writing consultants in the UH Writing Center have taught Dr. Sursavage the importance of discussion, feedback, and revision as integral parts of the writing process, which has inspired him to apply these lessons in his own work.

"The collaborative efforts between OURMA and the UH Writing Center led by Dr. Sursavage have yielded great results for our students," said Dr. Ben Rayder. "As a result of his contributions, our students have not only improved their writing, but also the kind of writing that they are assigned. This has prepared students for more success in fellowships, research, and applications for post-graduate programs."

Congratulations to Dr. Sursavage on his award!

# NATIONALLY COMPETITIVE SCHOLARSHIPS

Consider applying for one of these opportunities.

## BARRY GOLDWATER SCHOLARSHIP

For sophomores and juniors who demonstrate academic excellence and intend to pursue research careers in mathematics, the natural sciences, or engineering. This competitive scholarship covers eligible expenses for undergraduate tuition, fees, books, and room and board, up to a maximum of \$7,500 annually.

**Campus Deadline: Nov. 3, 2023**

## HARRY S. TRUMAN SCHOLARSHIP

For college juniors with exceptional leadership potential who are committed to careers as change agents in government, the nonprofit or advocacy sectors, education, or elsewhere in public service. Each Truman Scholar receives up to \$30,000 for graduate study.

**Campus Deadline: Nov. 3, 2023**

## MORRIS K. UDALL & STEWART L. UDALL SCHOLARSHIP

For sophomore and junior level students committed to careers related to the environment, tribal public policy or tribal health care. Awards of up to \$7,000 and access to the Udall Alumni Network.

**Campus Deadline: Early Feb. 2024**

## CRITICAL LANGUAGE SCHOLARSHIP

Language immersion program for undergraduates from all academic disciplines. Sponsored by the U.S. Department of State, this summer program allows students to study one of 15 critical languages abroad, including Arabic, Chinese, Korean, and Russian.

**National Deadline: Mid-Nov. 2023**

## NSF GRADUATE RESEARCH FELLOWSHIP

For graduating seniors who intend to pursue a research-based master's or doctoral degree in the natural sciences, engineering, mathematics, or STEM education. The award includes a \$34,000 living stipend and \$12,000 cost-of-education allowance.

**National Deadline: Mid-Oct. 2023**

## FULBRIGHT U.S. STUDENT PROGRAM

For graduating seniors, current graduate students, and alumni. Students may apply to teach English, enroll in a graduate degree program, or conduct research for one year in more than 140 countries. Recipients are awarded a living stipend, travel accommodations, and basic health insurance.

**Campus Deadline: Sept. 1, 2023**



Application for these awards requires a strong academic, leadership, and service record. In some instances, you must be nominated to apply. For more information, visit the Office of Undergraduate Research and Major Awards or contact Ben Rayder ([btrayder@uh.edu](mailto:btrayder@uh.edu)).

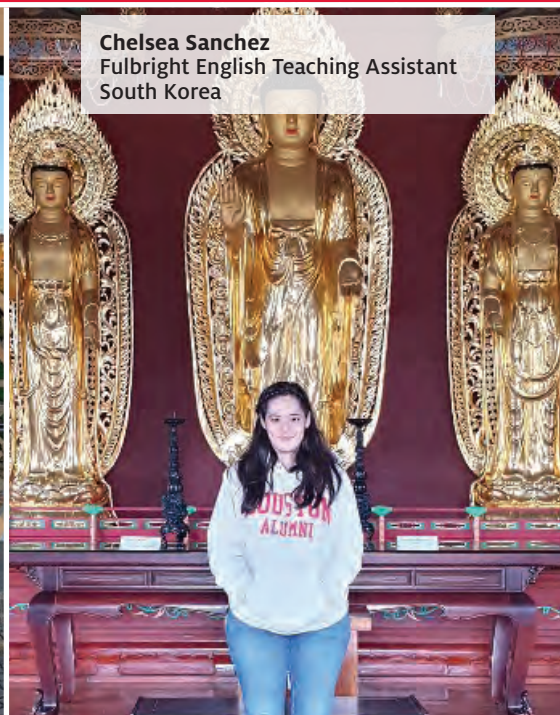


The University of Houston is a top-producing Fulbright institution.

# FULBRIGHT GRANTS FOR TEACHING ASSISTANTSHIPS OR STUDY/RESEARCH ABROAD



**Layla Kratovic**  
Fulbright Study/Research Grantee  
Bosnia and Herzegovina



**Chelsea Sanchez**  
Fulbright English Teaching Assistant  
South Korea

The Fulbright U.S. Student Program provides grants for individually designed Study/Research projects or for English Teaching Assistant Programs. During their grants, Fulbrighters meet, work, live with, and learn from the people of the host country to foster mutual understanding. Fulbright is one of the largest academic exchanges in the world, providing approximately 2,200 grants annually in more than 140 participating countries.



**Crystal Tran**  
Fulbright English Teaching Assistant  
Taiwan



**Johnny Zapata**  
Fulbright English Teaching Assistant  
Turkey

**2023 CAMPUS DEADLINE:**

**September 1, 2023**

**FOR MORE INFORMATION, CONTACT:**

**Benjamin Rayder, Ph.D.**

Executive Director, Office of Undergraduate Research and Major Awards

[btrayder@uh.edu](mailto:btrayder@uh.edu)

[www.us.fulbrightonline.org](http://www.us.fulbrightonline.org)











# UNDERGRADUATE RESEARCH



# HOUSTON EARLY RESEARCH EXPERIENCE

The **Houston Early Research Experience (HERE)** program recognizes freshman and sophomore students who excel both inside and outside the classroom. This two-week seminar series engages students from all majors in various research methodologies through faculty-led small group discussions and research presentations. Students receive a \$1,000 scholarship and two points toward the Honors in Co-Curricular Engagement transcript designation for participating in HERE.

## HERE 2022

**May 16-27, 2022**

Forty-six students representing nine UH colleges participated in the 2022 HERE program. Students conducted research and proposed solutions to challenges regarding energy in Houston.

### HERE Faculty Mentors:

Dan Bursleson	Kelly Hopkins
Charles Becker	Olivia Johnson
Christiana Chang	Rita Sirrieh
Marc Hanke	Marina Trninic



## HERE 2023

**May 15-26, 2023**

The 2023 theme for HERE will be “Food Systems: Culture, Security, and Sustainability.” Applications for the HERE program are accepted through early March each year. For more information on future HERE programming, contact Livia Garza at [llgarza@uh.edu](mailto:llgarza@uh.edu) or visit [uh.edu/here](http://uh.edu/here).



# HOUSTON SCHOLARS



The Houston Scholars is a competitive program for high-achieving freshmen and sophomores to receive mentorship and scholarship funding to pursue research, internships, and other distinctive experiential learning opportunities. Participants can receive three points toward the Honors in Co-Curricular Engagement transcript designation.

During the course of the academic year 2022-2023, Houston Scholars heard from a range of speakers about topics to help them make the most of their time at UH and develop their own unique skill sets. Subjects included Financial Literacy, Writing at the College Level, Developing a Global Perspective, the Value of Diversity and Inclusion, Identifying One's Strengths and Weaknesses, Applied Learning Through Research and Fellowships, Civic Responsibility, and Balancing Mental Health with School. Houston Scholars programming kicked off with a cohort mixer in September and will conclude in April. By the end of the year, cohort members will not only have a better understanding of opportunities at UH and how to be a responsible student but will also be able to develop a more intentional plan for their futures.

Questions? For additional information about the Houston Scholars, please contact Ben Rayder, Ph.D. at [btrayder@uh.edu](mailto:btrayder@uh.edu) in the Office of Undergraduate Research and Major Awards.

## Houston Scholars Participants:

Claudia Aramburu-Tinoco  
Briana Azad  
Perrin Calzada  
Paul Daniel  
Jayden Gunsolley  
Gabriela Hamdieh

Rosemarie Le  
Ehson Maleki  
David Nguyen  
Haley Romine  
Olivia Salinas  
Soraya Sato

Ramya Valipe  
Nathan Varghese  
Rebecca Wagley  
Eshal Warsi  
Mielad Ziaee



# RESEARCH FOR ASPIRING COOGS IN THE HUMANITIES

The **Research for Aspiring Coogs in the Humanities (REACH) Program** at the University of Houston is a collaborative effort supported by the Cougar Initiative to Engage and the Office of Undergraduate Research and Major Awards. REACH provides a \$1,500 scholarship and a year-long introductory research experience for students in humanities disciplines by connecting a dozen students to existing research projects at the University of Houston. Participants can also receive three points toward the Honors in Co-Curricular Engagement transcript designation. From projects in collaboration with UH Libraries Special Collections, to the digital humanities, to individual faculty research projects in humanities disciplines, the REACH program provides an entry-point to hands-on scholarly inquiry. Learn more at [uh.edu/reach](http://uh.edu/reach).

## 2022-2023 PARTNERS AND PARTICIPANTS



### **Making the History of UH Student Group Afro Americans for Black Liberation (AABL) Available Online**

Mentors

Mary Manning

Student Participant

Saron Regassa



### **SYRIOS**

Mentor

Peggy Lindner

Liz Rodwell

Student Participants

Haadi Hasan

Rory Dempsey



### **OER Textbook: Be a Tech Advanced Cultural Learner**

Mentors

Fang Fang

Sammy Hwang

Ariana Santiago

Melody Yunzi Li

Student Participant

Alejandra Gomez



### **Opening Up Anti-Asian Racism Dialogues through Storymap**

Mentors

Sammy Hwang

Melody Yunzi Li

Yali Zou

Student Participant

Matthew Tao



### **The Year 1771**

Mentor

David Mazella

Student Participant

Tatiana Haddad



### **Recovering the U.S. Hispanic Literary Heritage Program**

Mentors

Lorena Gauthereau

Gabriela Baeza Ventura

Carolina Villarroel

Student Participants

Erica Delgado

Lizbeth Jaimes

Chloe Levy



### **Resilient Houston: Documenting Hurricane Harvey**

Mentors

Debbie Harwell

Todd Romero

Student Participants

Katherine Galland

Kelly Montano



### **Sharing Stories from 1977**

Mentors

Sandra Davidson

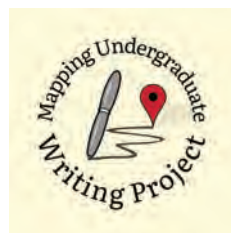
Nancy Young

Leandra Zarnow

Student Participants

Ishmam Alam

Diana Canales



### **Mapping Undergraduate Writing Project**

Mentor

Mark Sursavage

Student Participants

Stephanie Masterson

Amna Siddiqui



# PROVOST'S UNDERGRADUATE RESEARCH SCHOLARSHIP

The **Provost's Undergraduate Research Scholarship (PURS)** program provides talented University of Houston students with the opportunity to participate in a semester-long research project under the guidance of a UH faculty mentor. Students from all disciplines are encouraged to apply. PURS recipients receive a \$1,000 scholarship to conduct a one-semester research project with their faculty mentors. Participants can also receive three points toward the Honors in Co-Curricular Engagement transcript designation. For more information, contact Debbie Reyes at [dreyes13@uh.edu](mailto:dreyes13@uh.edu).



## FALL 2022 PURS RECIPIENTS

### Kathryn Aing

Mentored by Jiming Bao  
Electrical and Computer Engineering

### John Alvey

Mentored by Dimitrios Kalliontzis  
Civil and Environmental Engineering

### Laraib Arain

Mentored by Billy Hawkins  
Health and Human Performance

### Mugdha Sai Bhagavatula

Mentored by Bhavin Sheth  
Electrical and Computer Engineering

### Jayda Branch

Mentored by Amanda Venta  
Psychology

### Julio Cacho Bravo

Mentored by Jeremy May  
Chemistry

### Arushi Dheer

Mentored by Hanako Yoshida  
Psychology

### Kristin Dinh

Mentored by Rosenda Murillo  
Psychological, Health, & Learning Sciences

### Sarabeth Hanz

Mentored by Tracey Ledoux  
Health and Human Performance

### Benjamin Haverty

Mentored by Alexander Statsyuk  
Pharmacological and Pharmaceutical Sciences

### Tasneem Islam

Mentored by Bradley McConnell  
Pharmacological and Pharmaceutical Sciences

### Srijith Kambala

Mentored by Stephen Spann  
Family Medicine

### Gabrielle Kostecki

Mentored by Colin Haile  
Psychology

### Bao Le

Mentored by Tianfu Wu  
Biomedical Engineering

### Adriana Lopez Cajigas

Mentored by Max Rayneard  
Creative Work, Honors College

### Vicente Mandujano

Mentored by Jeffrey Church  
Political Science

### Devanshi Mistry

Mentored by Michael Zvolensky  
Psychology

### Karina Montero

Mentored by Kirill Larin  
Biomedical Engineering

### Fariz Nazir

Mentored by Tianfu Wu  
Biomedical Engineering

### Kim Nguyen

Mentored by Hanako Yoshida  
Psychology

### Minh Ngoc Nguyen

Mentored by Andrew Kapral  
Data and Society, Honors College

### Geraldine Palacios

Mentored by Debora Rodrigues  
Civil and Environmental Engineering

### Laura Rubio

Mentored by Mario Romero-Ortega  
Biomedical Engineering

### Robert Schnur

Mentored by J. Leigh Leasure  
Psychology

### Aaron Smith

Mentored by Marc Hanke  
Biology, Honors College

### Hoang Tran

Mentored by Mario Romero-Ortega  
Biomedical Engineering

### Emilia Waters

Mentored by Chatwara Duran  
English



# PROVOST'S UNDERGRADUATE RESEARCH SCHOLARSHIP

## SPRING 2023 PURS RECIPIENTS

**Anisa Abdulhussein**

Mentored by Jinsook Roh  
Biomedical Engineering

**Eberechukwu Adikaibe**

Mentored by Ashutosh Agrawal  
Mechanical Engineering

**Alexandra Ayala**

Mentored by Craig Johnston  
Health and Human Performance

**Alissa Boxleitner**

Mentored by Haylee Harrell  
English

**Rachel Byrd**

Mentored by Lorraine Stock  
English

**Veronica Carleton**

Mentored by Kavita Singh  
English

**Sean Chakraborty**

Mentored by Jinsook Roh  
Biomedical Engineering

**Samiksha Chandran**

Mentored by Robert Comito  
Chemistry

**Tracy Do**

Mentored by Stacey Gorniak  
Health and Human Performance

**Darren Doan**

Mentored by Jakoah Brgoch  
Chemistry

**Kelley Doan**

Mentored by Emily LaVoy  
Health and Human Performance

**Fatima Elmouden**

Mentored by Jerrod Henderson  
Chemical and Biomolecular Engineering

**Alexa Emmons**

Mentored by Cynthia Yoon  
Health and Human Performance

**Francisco Espinoza**

Mentored by Christopher Arellano  
Health and Human Performance

**Carlos Fuentes**

Mentored by Luis Medina  
Psychology

**Bruno Garcia**

Mentored by Tian Chen  
Mechanical Engineering

**Emily Goff**

Mentored by Sandra Zalman  
Art History

**Brandon Gonzales**

Mentored by Gangbing Song  
Mechanical Engineering

**Natalie Gorman**

Mentored by Paul Guajardo  
English

**Marcel Gugala**

Mentored by Stacey Gorniak  
Health and Human Performance

**Daniel Heo**

Mentored by Minwoo Lee  
Hotel and Restaurant Management

**Nancy Ho**

Mentored by Hanako Yoshida  
Psychology

**Kalena Holeman**

Mentored by Daniel Davies  
English

**Diana Huynh**

Mentored by Pranav Parikh  
Health and Human Performance

**Mary Ann Ivbievbiokun**

Mentored by Ashutosh Agrawal  
Mechanical Engineering

**Rohana Kuriakose**

Mentored by Megan Robertson  
Chemical and Biomolecular  
Engineering

**Owen Lartson**

Mentored by Michael Snediker  
English

**Danny Le**

Mentored by Mehmet Sen  
Biology and Biochemistry

**Gabrielle Lea**

Mentored by Chandra Mohan  
Biomedical Engineering

**Megan Lean**

Mentored by Beau Alward  
Psychology

**Ethan Marfil**

Mentored by Mehmet Sen  
Biology and Biochemistry

**Gisela Mathew**

Mentored by Hanako Yoshida  
Psychology

**Lynnsie McBride**

Mentored by Emily LaVoy  
Health and Human Performance

**Kelly Montano**

Mentored by Marwa Ghazali  
Comparative Cultural Studies

**Akhil Mulgaonker**

Mentored by Richard Mizelle  
History

**Jonathan Nguyen**

Mentored by Saleha Khumawala  
Accountancy & Taxation

**Thu Nguyen**

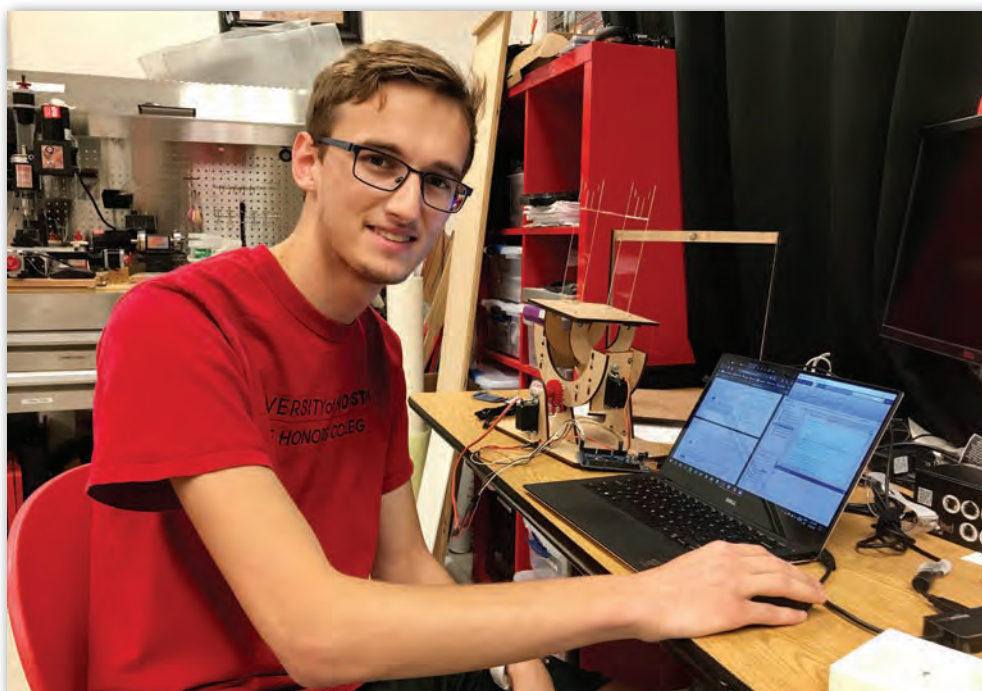
Mentored by Diana De La Rosa-  
Pohl  
Electrical and Computer Engineering

**Thu Nguyen**

Mentored by Jiefu Chen  
Electrical and Computer Engineering

**Ahsan Omer**

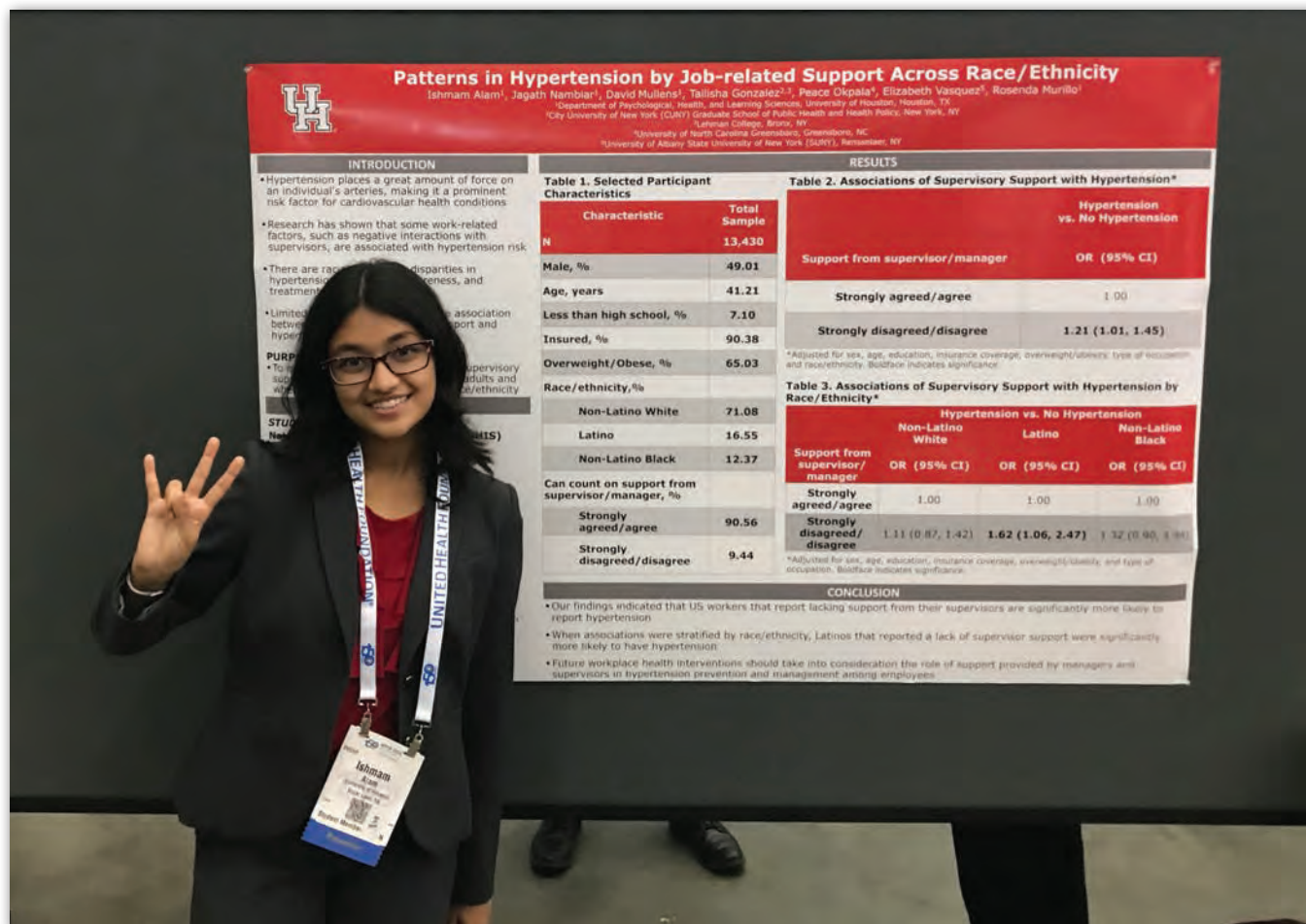
Mentored by Qin Feng  
Biology and Biochemistry





# PROVOST'S UNDERGRADUATE RESEARCH SCHOLARSHIP

## SPRING 2023 PURS RECIPIENTS (CONTINUED)



### Hem Patel

Mentored by Dan Graur  
Biology and Biochemistry

### Ryan Pereira

Mentored by Chandra Mohan  
Biomedical Engineering

### Debriunna Porter

Mentored by Tony Liao  
Information and Logistics Technology

### Sarah Rizvi

Mentored by Luis Medina  
Psychology

### Lilly Roelofs

Mentored by Mario Romero-Ortega  
Biomedical Engineering

### Sachiko Sakai

Mentored by Shuhab Khan  
Earth and Atmospheric Sciences

### Ibad Siddiqui

Mentored by Gul Zerze  
Chemical and Biomolecular  
Engineering

### Caroline Sizemore

Mentored by Marc Hanke  
Biology, Honors College

### Ali-Rayhaan Soonasra

Mentored by Kirill Larin  
Biomedical Engineering

### Logan Tantibanchachai

Mentored by Jeffrey Church  
Political Science

### Nicholas Tijerina

Mentored by Bo Zhao  
Mechanical Engineering

### Vize Tobor

Mentored by Tian Chen  
Mechanical Engineering

### Dylan Tran

Mentored by Rosenda Murillo  
Psychological, Health, & Learning  
Sciences

### Tien Tran

Mentored by Yingchun Zhang  
Biomedical Engineering

### Morgan Trapp

Mentored by Vivien Coulson-  
Thomas  
Optometry

### Marcus Tubera

Mentored by Jinsook Roh  
Biomedical Engineering

### James Valentine

Mentored by Gangbing Song  
Mechanical Engineering

### Andres Villarreal

Mentored by Denise Reyes  
Psychology

### Alexander Wright

Mentored by Bo Zhao  
Mechanical Engineering

### Sosina Yimam

Mentored by Stacey Louie  
Civil and Environmental Engineering

### Noor Zughaibi

Mentored by Vincent Tam  
Pharmacy Practice and Translational  
Research

# GEORGE “TREY” PHARIS FELLOWSHIP

Each summer, the Data & Society program offers the **George “Trey” Pharis Fellowship** as a full-time, paid research opportunity open to undergraduate students across all majors. Fellows work collaboratively, with support from faculty mentors, to conduct 10-week projects focused on the application of data science to health care and the social determinants of health, including education, criminal justice, and the environment.

Building on a model developed by the UH Community Health Worker Initiative, these projects are unified around a commitment to responsive engagement with community and show the many ways that new approaches to data science can avoid the pitfalls of top-down models for decision-making.

The Pharis Fellowship is supported by the Humana Integrated Health Systems Sciences Institute and Hewlett Packard Enterprise Data Science Institute through its Engaged Data Science program. The program is named for George S. Pharis III (Trey), a University of Houston alumnus (Philosophy '11), who served as an Honors College staff member until his passing in 2017. As a poet, musician, and writer with interests ranging from social justice to number theory, Trey exemplified the intellectual curiosity and open worldview we hope to inspire in our students.



## 2022 FELLOWS



**Janelle Bauske**

*Mathematics*  
Mental Health and Time:  
COVID-19 Edition



**Cade Coligan**

*Economics*  
Disparities in Rural vs Urban  
Public Education



**Alpha Garcia**

*Nutrition*  
An Examination of Houston  
ISD Bond Issues



**Justin George**

*Mathematics*  
Analyzing Teacher Retention  
Rate: Movement Trends within  
Texas



**Boi Ha**

*Health*  
Evaluate Roundtrip  
Transportation Programs  
by Generating Legacy's &  
Patients' ROI



**Noah Harrison**

*Computer Science*  
Rethinking Access to Healthy  
Foods: Investigating Food Access  
in Harris County



**Neha Joshi**

*Computer Science*  
The Impact of STEM-focused  
High School Education on Texas  
Student Outcomes



**Vivienne Pham**

*Biology*  
Examining the Role of  
Organizational Communication  
in Food Distribution Networks: A  
Rapid Review



**Anna So**

*Public Health*  
Determining the Effects of Limited  
Transportation on Heart Disease  
Risk Factor Prevalence



**Sobia Syed**

*Biology*  
Analyzing Consumer Complaints  
Against Companies in the  
Corrections Industry Using  
Qualitative Methods



**Olivia Tran**

*Honors Biomedical Sciences*  
The Effects of Language and Economic  
Status on Healthcare Access and Care  
Partnership in Families of Children with  
Special Health Needs



**Loorysa Ulysse**

*Mathematics*  
The Influence of Age, Sex, Race,  
and Ethnicity on Prevalence Rates  
of Co-occurring Health Conditions  
in Autism



**Samiha Zaman**

*MIS & Marketing*  
The Impact of STEM-focused High  
School Education on Texas Student  
Outcomes



**Mielad Ziaee**

*Psychology*  
Examining the Role of  
Organizational Communication in  
Food Distribution Networks: A Rapid  
Review



# PCCSM SUMMER RESEARCH PROGRAM

The **Partnership for Careers in Cancer Science and Medicine** summer program with national cancer researchers is hosted annually by The University of Texas MD Anderson Cancer Center. Nominated for exemplifying compassion and an aptitude for research in the medical field, selected students collaborate and work alongside worldwide cancer experts for 10 weeks in the summer.



The Partnership for Careers in Cancer Science and Medicine teaches and encourages passionate medical leaders through hands-on research training, weekly seminars, and workshops. At the end of the program, the trainees present the results of their research as scientific posters, along with trainees from other summer programs, at the MD Anderson Summer Experience Final Event as well as participate in an Elevator Speech contest, a fun, practical way to practice succinctly introducing their field of study and research to others.

**Congratulations to the following students accepted to the 2023 PCCSM Summer Program:**

- Briana Azad
- Paul Daniel
- Kala Pham
- Mielad Ziaee
- Noor Zughaibi

MD Anderson is one of the world's premier cancer centers focused on cancer patient care, research, education, and prevention. Students interested in learning about undergraduate research programs and opportunities for competitive fellowships should contact the Office of Undergraduate Research and Major Awards at [undergrad-research@uh.edu](mailto:undergrad-research@uh.edu).

## 2022 PCCSM RESEARCHERS



Kristen Harris



Rael Memnon



Jordan Pemberton



Kala Pham



Daniela Tovar



Varshini Vakulabharanam

# FRAMEWORKS

**FrameWorks** is a year-long co-curricular program that provides curious, driven undergraduate students a supportive community of peers and faculty mentors as they conceive, research, write, present, and ultimately publish critical essays that draw on the interdisciplinary humanities. Each year, FrameWorks challenges students to broadly interpret an annual theme. Essays that meet editorial standards will be included in *FrameWorks: A Journal of Undergraduate Research in the Interdisciplinary Humanities*. The theme for 2021/2022 was “Immunity.”

The best article published in each edition is awarded the **FrameWorks Prize for Excellence in the Interdisciplinary Humanities**. In 2022, the prize was awarded to Guadalupe Lombero for her article, “Immigrants are Essential: Paula Mendoza’s Aesthetic of the Undocumented.” The Prize was adjudicated by Interim Dean of the Honors College, Dr. Stuart Long, and Dr. Sally Connolly, Associate Dean of Student and Faculty Success in the College of Liberal Arts and Social Sciences.



Guadalupe Lombero

## 2022-2023 FELLOWS

In 2022-2023 the FrameWorks program challenged students to interpret the theme “Constellation.” FrameWorks Fellows, who hail from a variety of majors, have adopted inventive and exciting humanities-based approaches to a diversity of research topics:



### Nine Abad

Major: Political Science/  
Women, Gender, and  
Sexuality Studies  
Research Topic: The Santo  
Niño de Cebu and Filipino  
Nationalism



### Adriana Lopez Cajigas

Major: Computer Engineering  
Research Topic: 1994’s *The Lion  
King* and its 2019 CGI Remake



### Meneh Ofomaja

Major: Chemical  
Engineering  
Research Topic: Ben Okri’s  
“Stars of the New Curfew”



### Kalena Holeman

Major: English Literature  
Research Topic: Dante’s  
influence in Walcott’s  
*Omeros* and Ellison’s *Invisible  
Man*



### Alivia Mayfield

Major: History/World Cultures  
and Literatures  
Topic: Representations of  
Alexander the Great



### Saron Regassa

Major: Public Health  
Research Topic: Afro-  
Surrealism in Jordan Peele’s  
*The Twilight Zone*



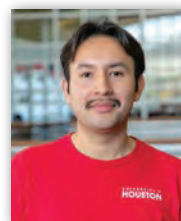
### Skyler Houser

Major: Psychology  
Research Topic: Celestial  
Bodies, Burial Rituals, The  
Iron Dagger of Tutankhamun



### Isha Merchant

Major: Journalism (Minor in  
India Studies)  
Research Topic: The Bollywood  
“Item Song”



### Adolfo Salazar

Major: Biotechnology/  
Philosophy  
Research Topic:  
Curanderismo and Holistic  
Medical Treatments



### Tuyen Le

Major: Philosophy/Political  
Science  
Research Topic: North  
Vietnamese Perspectives of  
the War in Vietnam



### Katerina Munoz

Major: Sociology/Women,  
Gender, and Sexuality Studies  
Research Topic: Father-  
Daughter Rape in Nabokov’s  
*Lolita*



### Zainab Tafish

Major: Biomedical Science  
Research Topic: Blindness in  
the Quran



## FRAMEWORKS

### FrameWorks 2023 Call for Applications Deadline: June 30, 2023

"I'm so happy I went through this process before I went to grad school, because I don't have a lot of those doubts, like *Am I going to be good? Am I going to be ready?* I know I'm ready."

**Kat Newman (FrameWorks '20)**

#### Do you want to be a FrameWorks Fellow? Applications for 2023-2024 are now open.

- Take part in a year-long mentorship and peer-support program – think and write about ideas that matter to you.
- FrameWorks guides you through the process of conceiving, researching, drafting, rewriting, refining, and presenting your article for possible publication in *FrameWorks: A Journal of Undergraduate Research in the Interdisciplinary Humanities*.
- Rising sophomores and juniors of all majors with a GPA of 3.5 or higher are invited to apply.

"It opened a lot of doors for me to do medical humanities research but also to take a step back and say, 'Wow, I really did do that.'"

**Leonard Wang (FrameWorks '21)**

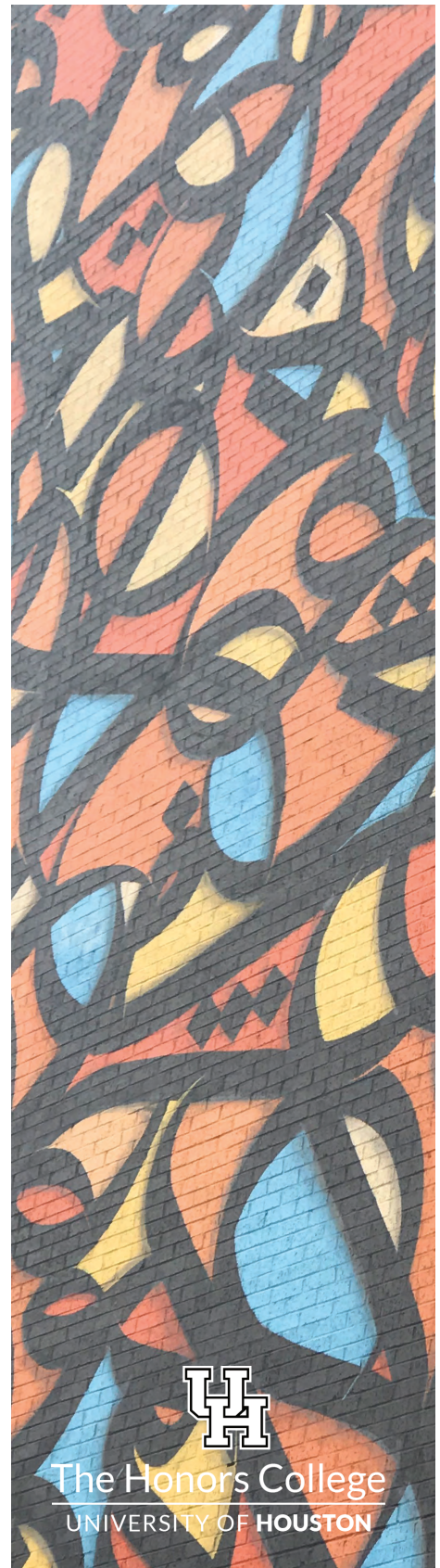
#### 2023-2024 Theme: Generation

For more information, visit [uh.edu/frameworks](https://uh.edu/frameworks).



The FrameWorks Program, an initiative of the Creative Work Minor, is housed in the Office of Undergraduate Research and Major Awards.

The FrameWorks Program is funded through the generous support of the Honors College, the College of Liberal Arts and Social Sciences, and the Cougar Initiative to Engage.



# MELLON RESEARCH SCHOLARS PROGRAM

The **Mellon Research Scholars Program** at the University of Houston seeks to contribute to the mission of creating a diverse academy in the humanities. Funded by a grant from the Mellon Foundation, the program supports undergraduate students from backgrounds underrepresented in the academy and others with a demonstrated commitment to the goal of building a diverse academy.

Mellon Research Scholars participate in an intensive two-week graduate school preparation program in May and a full-time, faculty-mentored summer research experience. The scholars also participate in faculty-led seminars and receive holistic mentorship throughout the year-long program. All students have the opportunity to develop research projects that appeal to their scholarly interests in their field of study. Each participant receives a total of \$5,000 for conducting their summer research project and participating in developmental academic and mentorship activities. Participants can also receive up to six points toward the Honors in Co-Curricular Engagement transcript designation.

For more information, contact Rikki Bettinger at [rrbettinger@uh.edu](mailto:rrbettinger@uh.edu) or visit the webpage: [uh.edu/mellonscholars](http://uh.edu/mellonscholars).

A special thanks to the faculty and staff from over 15 departments and offices at the University of Houston who shared their guidance and expertise with the Mellon Scholars this year!

## 2022 MELLON RESEARCH SCHOLARS



**Arreon Allen**  
Mentored by Luisa Orto  
Art History



**Jason Bang**  
Mentored by Eunjeong Lee  
English



**Carlos Campos Jr.**  
Mentored by Gabriela Baeza  
Ventura  
Hispanic Studies



**Dara DeSilva**  
Mentored by Johanna Luttrell  
Hobby School of Public Affairs



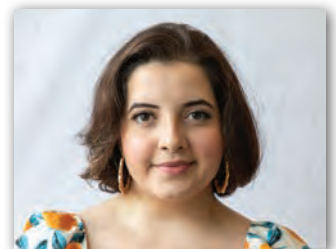
**Maya Dompier**  
Mentored by Sunny Yang  
English



**Jenna Goodrich**  
Mentored by Leandra Zarnow  
History



**Alex Gurule**  
Mentored by José Angel  
Hernández  
History



**Tatiana Haddad**  
Mentored by Susan Rasmussen  
Anthropology



# MELLON RESEARCH SCHOLARS PROGRAM



**Alexander Kerry**  
Mentored by Abdel Razzaq Takriti  
History



**Owen Lartson**  
Mentored by Sebastian J. Lecourt  
English



**Naveera Majid**  
Mentored by David Womble  
English



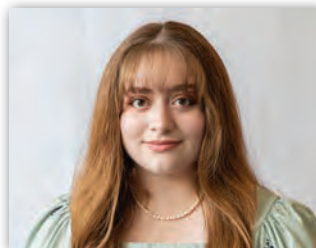
**Victoria Rances**  
Mentored by D. Justin Coates  
Philosophy



**Alfonso Reyes**  
Mentored by Margot Gayle Backus  
English



**Miranda Ruzinsky**  
Mentored by Manuel Gutiérrez  
Hispanic Studies



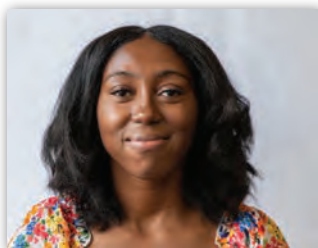
**Génesis Santillán**  
Mentored by Rex Koontz  
Art History



**Andres Tello**  
Mentored by Debbie Harwell  
History



**James Ian Thompson**  
Mentored by Richard Armstrong  
Modern and Classical Languages



**Tela Todd**  
Mentored by Jerome Crowder  
Social and Behavioral Sciences,  
College of Medicine



**León Valadés**  
Mentored by Kenneth Brown  
Anthropology



**Esraa Wasel**  
Mentored by Iain Morrisson  
Philosophy, Honors College



# 2022 SUMMER UNDERGRADUATE RESEARCH FELLOWSHIP



The 2022 **Summer Undergraduate Research Fellowship (SURF)** launched in June with 79 SURF recipients. Students participating in SURF come from a wide variety of disciplines, receive a \$4,000 scholarship, and commit to a full-time, 10-week research experience. Each week the students came together on Zoom for a virtual lecture series and learned about data science and management, how to seek

out and apply to competitive fellowships and graduate programs, and how to develop posters and present their work. Participants can also receive three points toward the Honors in Co-Curricular Engagement transcript designation. The Office of Undergraduate Research and Major Awards thanks our 2022 presenters for their participation in this year's lecture series.

## 2022 SURF BROWN BAG LECTURE SERIES

### WEEK 1

#### **Responsible Conduct of Research**

Hanako Yoshida  
*Psychology*

Jeremy May  
*Chemistry*

### WEEK 2

#### **Data Visualization Techniques**

Dan Price  
*Data and Society, Honors College*

### WEEK 3

#### **UH Library Research Resources**

Veronica Douglas  
Mea Warren  
*UH Libraries*

### WEEK 4

#### **Applying to Graduate School**

Sarah Ehlers  
*Director for Graduate Studies, English*

Susan Scarrow  
*Director for Graduate Studies, Political Science*

Melissa Lowrey  
*Director for Graduate Studies, NSM*

### WEEK 5

#### **Independence Day Holiday**

### WEEK 6

#### **Building an Effective Resume and CV as a Researcher**

*UH University Career Services*

### WEEK 7

#### **Time Management in Research, SURF, PURS, and Mellon Alumni**

Anushka Oak  
Andreina Ruiz  
Carl Suerte  
*UH Alumni*

### WEEK 8

#### **Applying for Fellowships and Major Awards**

Ben Rayder  
*Office of Undergraduate Research and Major Awards*

### WEEK 9

#### **Developing an Effective Poster and Presentation Etiquette**

Chad Wilson  
*Engineering*

Victoria Jupp  
*Office of Undergraduate Research and Major Awards*

### WEEK 10

#### **Celebration & SURF Alumni Panel Discussion**



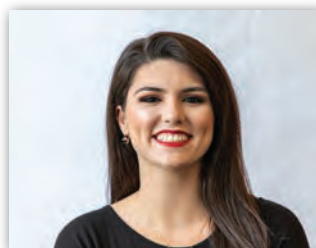
# 2022 SUMMER UNDERGRADUATE RESEARCH FELLOWSHIP



**Nawar Ahmed**  
Mentored by Hanako Yoshida  
Psychology



**Ishmam Alam**  
Mentored by Rosenda Murillo  
Psychological, Health, & Learning  
Sciences



**Kendall Bailey**  
Mentored by Devin Shaffer  
Civil and Environmental  
Engineering



**Miriam Bautista**  
Mentored by Norah Gharala  
History



**Brandt Bechtel**  
Mentored by Dimitrios Kalliontzis  
Civil and Environmental  
Engineering



**Nicolas Betancourt**  
Mentored by Tian Chen  
Mechanical Engineering



**Matthias Chew**  
Mentored by Loi Do  
Chemistry



**Abigail Colbert**  
Mentored by Venkatesh Balan  
Engineering Technology



**Justin Collier**  
Mentored by Clayton Neighbors  
Psychology



**Justin Dang**  
Mentored by Michael Nikolaou  
Chemical and Biomolecular  
Engineering



**Darren Doan**  
Mentored by Jakoah Brgoch  
Chemical and Biomolecular  
Engineering



**Mariam Dumitrascu**  
Mentored by Beau Alward  
Psychology



**Dima Ghazala**  
Mentored by Elizabeth Simas  
Political Science



**Alejandra Gomez**  
Mentored by Amber Thiessen  
Communication Sciences and  
Disorders



**Hasan Habazi**  
Mentored by Zheng Chen  
Mechanical Engineering



**Evelyn Hernandez Sanchez**  
Mentored by Summer Harlow  
Journalism



**David Paul Hilton**  
Mentored by Tanya Bagashka  
Political Science



**Nhi Hoang**  
Mentored by Lars Grabow  
Chemical and Biomolecular  
Engineering



**Valeria Hohl**  
Mentored by Scott Clark  
Biology and Biochemistry



**Diana Huynh**  
Mentored by Pranav Parikh  
Health and Human Performance



**Shanzeh Imran**  
Mentored by Chandra Mohan  
Biomedical Engineering



**Tasneem Islam**  
Mentored by Bradley McConnell  
Pharmacological and  
Pharmaceutical Sciences



**Deaunte Johnson**  
Mentored by Casey Dué Hackney  
Modern and Classical Languages



**Danial Khan**  
Mentored by Andreas Mang  
Mathematics



**Lacey Knowles**  
Mentored by Ferenc Bunta  
Communication Sciences and  
Disorders



**Jay Lim**  
Mentored by Ognjen Miljanic  
Chemistry



**Jing Ming Lim**  
Mentored by Renita Horton  
Biomedical Engineering



**Bryan Luna**  
Mentored by Gangbing Song  
Mechanical Engineering



**Maria Jose Macias Zuniga**  
Mentored by Hanako Yoshida  
Psychology



**Manuel Martinez**  
Mentored by Vivien Coulson-  
Thomas  
Optometry



**Allen Mathew**  
Mentored by Kamran Alba  
Mechanical Engineering  
Technology



**Ayush Mehta**  
Mentored by Alexander Statsyuk  
Pharmacological and  
Pharmaceutical Sciences





**Aashna Momin**  
Mentored by Venkatesh Balan  
Engineering Technology



**Erin Myers**  
Mentored by Jesse Rainbow  
Religious Studies, Honors College



**Fariz Nazir**  
Mentored by Tianfu Wu  
Biomedical Engineering



**Emily Nguyen**  
Mentored by Shoujun Xu  
Chemistry



**Minh Khue Nguyen**  
Mentored by Kerri Crawford  
Biology and Biochemistry



**Ngoc Nguyen**  
Mentored by Thomas Teets  
Chemistry



**Miracle Ofomaja**  
Mentored by Mehmet Orman  
Chemical and Biomolecular  
Engineering



**Javier Padron**  
Mentored by Loi Do  
Chemistry



**Catherine Pham**  
Mentored by Tony Frankino  
Biology and Biochemistry



**Aryana Pourmotamed**  
Mentored by Sheereen Majd  
Biomedical Engineering



**Claudia Ramirez**  
Mentored by Ferenc Bunta  
Communication Sciences and  
Disorders



**Ethan Rothschild**  
Mentored by Rebecca Zufall  
Biology and Biochemistry



**Anna Rowbatham**  
Mentored by Islam Rizvanoglu  
Economics



**Amna Saleem**  
Mentored by Natalia Zhivan  
Economics



**Erin Satterwhite**  
Mentored by Sandra Zalman  
Art History



**Emily Schubert**  
Mentored by Marc Hanke  
Biology, Honors College



**Nathan Seto**  
Mentored by Robert Comito  
Chemistry



**Aliasghar Shariff**  
Mentored by Tian Chen  
Mechanical Engineering



**Neha Sherif**  
Mentored by Megan Robertson  
Chemical and Biomolecular  
Engineering



**Ali-Rayhaan Soonasra**  
Mentored by Kirill Larin  
Biomedical Engineering



**Elizabeth Spencer**  
Mentored by Dustin Gish  
Political Science, Honors College



**Nga Thai**  
Mentored by Chandra Mohan  
Biomedical Engineering



**Chloe Tondera**  
Mentored by Marzia Cescon  
Mechanical Engineering



**Tung Tran**  
Mentored by William Widger  
Biology and Biochemistry



**Morgan Trapp**  
Mentored by Vivien Coulson-  
Thomas  
Optometry



**Michael Trujillo**  
Mentored by Claudia Ratti  
Physics



**Ekta Upadhyay**  
Mentored by Sanghyuk Chung  
Biology and Biochemistry



**James Valentine**  
Mentored by Gangbing Song  
Mechanical Engineering



**Iva Wagner**  
Mentored by Mehmet Orman  
Chemical and Biomolecular  
Engineering



**Elisabeth Walla**  
Mentored by Michael Zvolensky  
Psychology



**Katherine Wong**  
Mentored by Vaughn Climenhaga  
Mathematics



**Sarah Wong**  
Mentored by Jeff Feng  
Industrial Design





**Jenna Zamil**

Mentored by Samina Salim  
Pharmacological and  
Pharmaceutical Sciences



**Juletsi Zuniga-Juarez**

Mentored by Norah Gharala  
History

**Muhammad Ayser**

Mentored by Venkatesh Balan  
Engineering Technology

**Laurent Bernadel**

Mentored by Amber Thiessen  
Communication Sciences and Disorders

**Alexandra Goodin**

Mentored by Carol Cooper  
Political Science

**Juan Guardia**

Mentored by Johanna Bick  
Psychology

**Andrea Lopez**

Mentored by Megan Robertson  
Chemical Engineering

**Madeline Moore**

Mentored by Robert Shimko  
Theatre & Dance

**Maria Eduarda Mroczek**

Mentored by Benjamin Tamber-Rosenau  
Psychology

**Akhil Mulgaonker**

Mentored by José Angel Hernández  
History

**Carla Romero**

Mentored by Kerri Crawford  
Biology and Biochemistry

**Pranjal Sheth**

Mentored by Diana Chow  
Pharmacological and Pharmaceutical Sciences

**Victoria Teoh**

Mentored by Marc Hanke  
Biology, Honors College

**Ana Vallejo Herrera**

Mentored by Rajkamal Vasu  
Finance

**Emilia Waters**

Mentored by Julie-Françoise Tolliver  
Modern and Classical Languages



# UNDERGRADUATE RESEARCH MENTOR AWARDS

The Office of the Provost, in conjunction with the Office of Undergraduate Research and Major Awards, offers Undergraduate Research Mentor Awards to honor the dedicated practice of undergraduate mentorship at the University of Houston. These awards recognize excellence in supporting undergraduate research and convey the campus' high regard for outstanding contributions made to the academic and research community. Award winners advise and work one-on-one with students on personalized, creative, enriching projects; they are committed to providing undergraduate research experiences above and beyond the classroom.

The Office of Undergraduate Research and Major Awards congratulates the 2022 Undergraduate Research Mentor Award recipients: **Loi Do**, **W. Anthony (Tony) Frankino**, and **Kirill Larin**.



## LOI DO

Associate Professor Loi Do is the winner of the National Science Foundation CAREER Award, as well as a Junior Faculty Award for Excellence in Research from NSM. Dr. Do has published 28 peer-reviewed papers since joining UH in 2013 in the Department of Chemistry and is a founding member of the newly established National Science Foundation Center for Integrated Catalysis. During his time at UH, Dr. Do has mentored 18 undergraduate students who have been included in seven peer-reviewed publications and 13 presentations. Several of his former mentees are currently pursuing advanced degrees. Dr. Do tailors his mentees' projects to their individual research interests and what they want to learn. "My strategy for promoting chemical research is to give students the ability to explore the molecular world guided by their own curiosity and creativity," writes Dr. Do.



## W. ANTHONY (TONY) FRANKINO

Associate Professor Tony Frankino, the Associate Chair of Undergraduate Affairs for the Biology and Biochemistry Department, has mentored hundreds of undergraduate students across various disciplines. Several of his students have received SURF and PURS awards, and roughly 50 have gone on to pursue graduate education. Dr. Frankino coordinates the Biology and Biochemistry Undergraduate Research Scholarship (BURS) and the *GalapaGo!* Research-based Learning Abroad programs, while additionally serving as a faculty co-advisor for SACNAS UH (Society for Advancement of Chicanos/Hispanics and Native Americans in Science). Dr. Frankino uses culturally aware and sustaining mentorship within his programming to address the systemic barriers that exclude students from some populations from STEM success. Dr. Frankino shares that his "goals are to increase the retention and success of all my mentees, and to foster a culture supportive of the diverse populations of students on our campus."



# UNDERGRADUATE RESEARCH MENTOR AWARDS



## KIRILL LARIN

Cullen College of Engineering Distinguished Professor Kirill Larin has co-authored more than 200 peer-reviewed articles since joining UH in 2004. He is a winner of the Cullen College of Engineering Faculty Excellence Award and was elected as a fellow for the American Institute for Medical and Biological Engineering (AIMBE), the Optical Society (OPTICA), and the International Society for Optics and Photonics (SPIE). He has mentored 45 undergraduate students who have been included as co-authors in over 30 peer-reviewed publications. Several of Dr. Larin's past mentees have pursued graduate degrees, medical school, or secured biomedical engineering-related jobs outside academia. "The overall goal of my undergraduate education activities is to create a stimulating learning environment inside and outside the classroom," writes Dr. Larin. The integration of research and education is an essential part of Dr. Larin's mentoring philosophy.





# UNIVERSITY OF HOUSTON LIBRARIES

## Research and Student Engagement at UH Libraries

Under the leadership of Associate Dean Santi Thompson, Research and Student Engagement (RASE) includes Information and Access Services, Open Education Services, Research Services, and Teaching and Learning. RASE exists to collaborate with students, faculty, and the scholarly community across the research and learning lifecycle; to cultivate the enhancement of learning and research spaces; and to implement information literacy efforts and co-curricular learning experiences in support of student success.

University of Houston Libraries serves the UH community by enhancing student learning, participating in the development of scholarly research and creative output, and promoting discovery of information and knowledge from diverse and relevant resources. You can find past works of undergraduate research in the UH Institutional Repository, which collects, preserves, and makes accessible scholarly output and creative works produced by members of the UH community. Collections include “Undergraduate Research Day Projects” and “Senior Honors Theses.”

Contact [libteach@uh.edu](mailto:libteach@uh.edu) to:

- Map out your research approach
- Develop search strategies
- Find library resources

“I am excited to work alongside talented colleagues at UH Libraries to create diverse and enriching experiences for students, faculty, and staff to learn, create, and connect with one another. The RASE focus is to support the student experience and establish a tangible and potential path for their opportunity to engage with a community of scholars. This approach empowers us to solidify the transformational experiences happening across learning, research, and daily access to our materials, specialists, services, and spaces. RASE frames the larger context of access, learning, and research that takes place every day throughout the Libraries.”

**SANTI THOMPSON**

Associate Dean, UH Libraries Research and Student Engagement

*Thank you to UH Libraries for supporting Undergraduate Research at the University of Houston.*



# THE WRITING CENTER



Writing is thinking. It is an indispensable activity for every discipline conducting research within a university setting and an essential component of a university education. Ongoing instruction in writing helps to initiate students into the changing intellectual demands of university life and introduces them to the complexities of their chosen disciplines and professions. Because writing provides the tools to discover and articulate solutions to intellectual problems, improved writing remains a continual goal of university education.

To address these concerns, the mission of the **University of Houston Writing Center** includes Assessment, Writing Instruction, Curricular Innovation, Community Outreach, Professional Development, and Research in the Teaching of Writing. Website: [writingcenter.uh.edu](http://writingcenter.uh.edu)

*Thank you to the Writing Center for supporting Undergraduate Research at the University of Houston.*

## WRITING CENTER SERVICES



### STUDENT SERVICES

The Writing Center offers one-on-one consultations in which our trained Writing Consultants assist students with various types of writing appointment base only.



### FACULTY SERVICES

The Writing Center supports UH faculty in instituting effective writing practice, instructions, and evaluation through consultation, design and training services.



### ONLINE WRITING SERVICES

Students also have the option to meet online with our trained consultants to discuss their writing from any location through our Online Writing Services.

# OURMA WEBINAR SERIES



## FALL 2022 SCHEDULE

**SEPTEMBER 16, 2022**

**Getting Started in Research**

Rikki Bettinger

*Office of Undergraduate Research and Major Awards*

**OCTOBER 24, 2022**

**Incorporating Feedback**

Mark Sursavage

*UH Writing Center*

**NOVEMBER 7, 2022**

**Interviewing 101**

Anthony B. Cashman III

*College of the Holy Cross*

**NOVEMBER 11, 2022**

**Communicating Your STEM Research**

Rita Sirrieh

*Honors College*

## SPRING 2023 SCHEDULE

**FEBRUARY 3, 2023**

**Getting Started in Research**

Debbie Reyes

*Office of Undergraduate Research and Major Awards*

**FEBRUARY 17, 2023**

**Research Opportunities Abroad**

Debbie Reyes

*Office of Undergraduate Research and Major Awards*

Jade Green

*Learning Abroad*

**MARCH 3, 2023**

**Undergraduate Researchers Alumni Panel**

Livia Garza

*Office of Undergraduate Research and Major Awards*

**APRIL 17, 2023**

**Applying to Life Sciences/STEM Ph.D. Programs**

Richard Meisel

*College of Natural Sciences*





# Senior Honors Thesis

The Senior Honors Thesis is a 2-semester, 6 credit hour capstone research experience under the guidance of a faculty mentor. Students of all majors can participate—membership in the Honors College is not required. The Office of Undergraduate Research and Major Awards collaborates with the Honors College and the College of the student's major to oversee the thesis process and approval.

Participants must have:

- a 3.25 cumulative GPA
- a 3.5 major GPA
- departmental approval
- Honors College approval

## Step 1:

Ask your professors about their research and creative work to see if their interests align with yours. Don't be afraid to ask for advice!



## Step 3:

Ask a faculty member to serve as your thesis director.



## Step 5:

Work with your major department to enroll in 3399 (or equivalent) Senior Honors Thesis course.



## Step 7:

Submit the Prospectus, Prospectus Approval Form, and the Senior Honors Thesis Checklist to the Office of Undergraduate Research and Major Awards by the first day of the semester.



## Step 9:

Continue your research and begin drafting initial chapters. Communicate regularly with your thesis director and your readers.



## Step 11:

Finish drafting, revising, and formatting your thesis, in consultation with your committee and following the guidance of the Honors College and your college liaison.



## Step 13:

Finalize revisions and submit your thesis. Graduate with an Honors designation on your transcript!



## Step 2:

Talk to students currently enrolled in the Senior Honors Thesis and other undergraduate research programs about their experiences with research.



## Step 4:

Complete the Verification of Eligibility Form to receive enrollment approval the semester prior to beginning your thesis.



## Step 6:

Based on your research and conversations with your thesis director, draft a prospectus before the start of the 3399 semester and identify a second reader for your committee.



## Step 8:

The Office will assign an Honors Reader to your committee who will also review your prospectus.



## Step 10:

Register for 4399 (or equivalent) prior to your second semester of thesis work. Maintain a consistent writing and communication schedule with your thesis director and other members of your committee.



## Step 12:

Schedule your thesis defense and defend your thesis.



For more information, contact:

**Rikki Bettinger, Ph.D.**  
Office of Undergraduate Research and  
Major Awards  
rrbettin@central.uh.edu







# 2023 UNDERGRADUATE RESEARCH DAY PRESENTERS

# 2023 UNDERGRADUATE RESEARCH DAY PRESENTERS

Undergraduate Research Day celebrates the achievements of all University of Houston undergraduates pursuing faculty-mentored research. Congratulations to the following students.

## INDIVIDUAL PRESENTATIONS

### **Samantha Agyapong**

Mentored by Kevin Garey  
Pharmacy Practice and Translational Research

Investigation of Fecal pH in Healthy Volunteers Receiving Omadacycline or Vancomycin

### **Nawar Ahmed**

Mentored by Hanako Yoshida  
Psychology

Lexical Composition of Bilingual vs. Monolingual Parental Verbal Input & Its Influence on Child Vocabulary

### **Ishmam Alam**

Mentored by Rosenda Murillo  
Psychological, Health, & Learning Sciences

Patterns in Hypertension by Job-related Support Across Race/Ethnicity

### **Arreon Allen**

Mentored by Luisa Orto  
Art History

The Harder They Fall and the Importance of Contemporary Black Storytelling

### **Hufsa Arain**

Mentored by Hyun Lee  
Jan and Dan Duncan Neurological Research Institute

Assessing the Effects of Daam2 and its Human Variants on Glioma Proliferation

### **Laraib Arain**

Mentored by Billy Hawkins  
Health and Human Performance

Name, Image, and Likeness Legislation: Who's Benefiting?

### **Sophia Asif**

Mentored by Hanako Yoshida and Lichao Sun  
Psychology

Influence of Caregiver Status on Joint Attention in Children

### **Alexandra Ayala**

Mentored by Craig Johnston and Cynthia Yoon  
Health and Human Performance

COVID-19 Stress and COVID-19 Distress with Maladaptive Eating and Adaptive Eating Among College Students

### **Muhammad Ayser**

Mentored by Venkatesh Balan  
Engineering Technology

Fractionation of Mushroom Stems to Various Bioactive Molecules and Processing Chitin to Hydrogel for Wound Healing Application

### **Funmi Babajide**

Mentored by Tasneem Bawa-Khalfe  
Biology and Biochemistry

Impact of SUMO Post-translational Modification on Breast Cancer Development

### **Kendall Bailey**

Mentored by Devin Shaffer  
Civil and Environmental Engineering

Measuring Pore Sizes in Covalent Organic Framework (COF) Membranes through Dye Rejection Experiments

### **Carter Baker**

Mentored by Candice Alfano and Anthony Cifre  
Psychology

The Relationship Between Weighted Blanket Use and Sleep Disturbances Among Children Recently Adopted from Foster Care

### **Jason Bang**

Mentored by Eunjeong Lee  
English

Vietnamese American Intergenerational Trauma: Conflict as Rhetoric In Vietnamese American Memoirs

### **Yolanda Batz Tzul**

Mentored by Cheryl Brohard  
Nursing

Modifying A Life Review Intervention For People Living With Dementia.

### **Janelle Bauske**

Mentored by Andrew Kapral and Ioannis Konstantinidis  
Data and Society, Honors College

COVID-19, Mental Health, & Women with Children: An Intersection

### **Laurent Bernadel**

Mentored by Amber Thiessen  
Communication Science and Disorders

Effectiveness of Key Wording on Story Comprehension and Visual Attention for People with Aphasia



# 2023 UNDERGRADUATE RESEARCH DAY PRESENTERS

## Jayda Branch

Mentored by Amanda Venta  
Psychology

Emotional Intelligence Across Different Races for Justice-Involved Adolescence

## Devin Brown

Mentored by Amy Sater and Pratip Bhattacharya  
Biology and Biochemistry; Cancer Systems Imaging

Targeted Molecular Imaging of CRC using Hyperpolarized silicon nanoparticles

## Amy Bui

Mentored by Chandra Mohan and Srinandhini Chandran  
Biomedical Engineering

Effects of Mesenchymal Stem Cells (MSCs) on Cancer Cell Proliferation and Apoptosis

## Raul Caballero Montes

Mentored by Javier Garcia Bermudez  
UT Southwestern Children Research Institute

Dissecting the Transcriptional Regulation of the Tumor Antioxidant Response

## Alfredo Calderon-Macedo

Mentored by Greg Morrison and Esteban Dodero-Rojas  
Physics; Rice University

Analysis of the SARS-CoV-2 nucleocapsid protein suggests multiple structures suitable for use in vaccine design

## Carlos Campos Jr.

Mentored by Gabriela Baeza Ventura  
Hispanic Studies

Connections Within the Greater Houston Partnership: A Social Network Analysis of the GHP Board of Directors

## Alexia Changelpet

Mentored by Mario Romero-Ortega and Sierra Cowan  
Biomedical Engineering; College of Medicine

Differential Neurovascular Plexus Innervation in the Spleen

## Matthias Chew

Mentored by Loi Do and Rahul Jana  
Chemistry

Aldehyde Reduction via Mitochondria Targeting Iridium Complex

## Abigail Colbert

Mentored by Venkatesh Balan  
Engineering Technology

Producing Peptostreptococcus Magnus Protein L and binding domain using E. Coli

## Justin Collier

Mentored by Clayton Neighbors  
Psychology

The Keys That Bind Us: Belongingness in Discord Servers

## Leo Collier

Mentored by Robert Stewart  
Earth and Atmospheric Sciences

Barringer Crater: Recreating Anomalous Impact Morphology through Sandbox Modelling

## Taylor Cornett

Mentored by Diana Chow  
Pharmacological and Pharmaceutical Sciences

Pharmacokinetic Modeling of Vincristine and Its Metabolite in Kenyan Pediatric Cancer Patients

## Justin Dang

Mentored by Michael Nikolaou  
Chemical and Biomolecular Engineering

Enhanced Geothermal System: A Simulation Study

## Erica Delgado

Mentored by Lorena Gauthereau and Carolina Villarroel  
Arte Público Press

Hidden Latina Figures Overshadowed By Western Media

## Caycel Desales

Mentored by Yuhong Wang and Jacob Steele  
Biology and Biochemistry

Mutagenesis of Escherichia coli Elongation Factor G for Domain IV sm-FRET and Force Studies

## Dara DeSilva

Mentored by Johanna Luttrell  
Hobby School of Public Affairs

The Implications of the Criminality Spectacle on Marginalized Groups

## Arushi Dheer

Mentored by Hanako Yoshida and Lichao Sun  
Psychology

The Effect of Object Distance on Word Learning: Nouns and Verbs

## Darren Doan

Mentored by Jakoah Brgoch  
Chemistry

Investigating Gold Intermetallics Featuring Disordered Networks

## Maya Dompier

Mentored by Sunny Yang  
English

Theresa Cha's *Dictée* read as a Layered Account  
Autoethnography

## Mariam Dumitrascu

Mentored by Beau Alward and Lillian Jackson  
Psychology

Identifying Neural Activation of Sex-Typical Aggressive  
Behaviors in *Astatotilapia burtoni*

## Nusayba El-Ali

Mentored by Mario Romero-Ortega  
Biomedical Engineering

Fibrotic Response of Electrical Stimulation on the Sciatic  
Nerve of Rats

## Fatima Elmouden

Mentored by Jerrod Henderson  
Chemical and Biomolecular Engineering

Long COVID: Elucidating the Impact of COVID-19 on Black  
Male Engineering Students- Highlighting their Resilient  
Assets

## Lexi Emmons

Mentored by Cynthia Yoon and Craig Johnston  
Health and Human Performance

Associations of Adverse Childhood Experiences with  
Maladaptive eating and Adaptive eating among college  
students

## Kevin Fleming

Mentored by Lars Grabow  
Chemical and Biomolecular Engineering

Computational Study of CO<sub>2</sub> Capture Using MIL-100 (Cr)

## Caitlyn Foret

Mentored by Lindita Camaj and Hojoon Choi  
Communication

Corporate Social Responsibility and the Magic of  
Meaning Theory in Major Corporations LGBTQ+ Pride  
Advertisements

## Carlos Fuentes

Mentored by Luis Medina  
Psychology

Beliefs, Attitudes, and Knowledge of Alzheimer's  
Disease in Hispanic/Latin Americans Living in the U.S.: A  
Systematic Review

## Justin George

Mentored by Andrew Kapral and Ioannis Konstantinidis  
Data and Society, Honors College

Analyzing Teacher Retention Rates: Movement Trends  
within Texas

## Dima Ghazala

Mentored by Elizabeth Simas  
Political Science

Does Politicians' Use of Moral Rhetoric Polarize Voters?

## Alejandra Gomez

Mentored by Amber Thiessen  
Communication Sciences and Disorders

Virtual Therapy Experiences of Speech-Language  
Pathologists who Work with Clients with Aphasia

## Jenna Goodrich

Mentored by Leandra Zarnow  
History

Discourses of Violence in True Crime Narratives

## Jenna Goodrich

Mentored by Julie Grob  
Special Collections, UH Libraries

From Coast to Coast: A Tour of DJ Screw's Record  
Collection

## Juan Pablo Guardia

Mentored by Johanna Bick  
Psychology

The Effect of Maternal Stress During Pregnancy on Fetal  
Brain Development

## Alexandra Gurule

Mentored by José Angel Hernández  
History

The 6th Age of the World: Anglo-Saxon England and The  
Great Heathen Army

## Boi Ha

Mentored by Andrew Kapral and Dan Price  
Data and Society, Honors College

Evaluating Return on Investment in Transportation  
Program

## Hasan Habazi

Mentored by Zheng Chen  
Mechanical Engineering

The Impact of Temperature, Pressure and Humidity on the  
Actuation of Dielectric Elastomer Actuators

## Tatiana Haddad

Mentored by Susan Rasmussen  
Comparative Cultural Studies

Tourism in Wadi Rum, Jordan: Bedouin Cultural  
Commercialization and Economic Agency

## Tatiana Haddad

Mentored by David Mazella  
English

1771, A Literary History: Genre, Origin, and Authorship



**Nikki Hammond**

Mentored by Lars Grabow

Chemical and Biomolecular Engineering

Computationally Modeling the Effectiveness of Pd/Cu as a Diesel Oxidation Catalyst

**Noah Harrison**

Mentored by Andrew Kapral and Dan Price

Data and Society, Honors College

Can a More Comprehensive Index Be Formed to Identify Areas of Low Access to Food Sources in Harris County?

**Daniel Heo**

Mentored by Minwoo Lee

Global Hospitality Leadership

Does Inclusivity Matter in Hospitality and Tourism?

Exploring the Needs of People with Disabilities through Business Intelligence

**Evelyn Hernandez Sanchez**

Mentored by Summer Harlow

Communication

Worlds of Journalism Study

**David Paul Hilton**

Mentored by Tanya Bagashka

Political Science

The Impact of Sanctions on Bilateral Trade between Russia and Non-Sanctioning Countries

**Nancy Ho**

Mentored by Hanako Yoshida and Lichao Sun

Psychology

A New Method for Measuring Infant's Multimodal Experiences: Combining Head-Mounted Eye-Tracking and Electroencephalogram (EEG) Techniques

**Valeria Hohl**

Mentored by Kerri Crawford and Scott Clark

Biology and Biochemistry

The Suppressive Effect of *Verbena brasiliensis* on Native Species in Individual and Community Competition**Janita Hussain**

Mentored by Claudia Ratti and Joaquin Grefa

Physics

Realistic QCD Equation of State from Black Hole and Hadronic Physics

**Diana Huynh**

Mentored by Pranav Parikh

Health and Human Performance

Reduced Modulations in Leg Muscle Activity During a Challenging Balance Task in Stroke Survivors

**Shanze Imran**

Mentored by Chandra Mohan and Anton Crosslee

Biomedical Engineering

Effects of Cytokines on Blood Brain Barrier in Neuropsychiatric Systemic Lupus Erythematosus

**Tasneem Islam**

Mentored by Bradley McConnell and John Craft

Pharmacological and Pharmaceutical Sciences; Biology and Biochemistry

Finding Molecular Inhibitors to Neutralize SARS-CoV-2 Infection and its Variants

**Lizbeth Jaimes**

Mentored by Carolina Villarroel and Lorena Gauthereau

Arte Público Press

Recording Gender and Children Violence Through Historical Newspapers

**Deaunte Johnson**

Mentored by Casey Dué Hackney

Classical Studies

Investigating the Link Between Ideals of Masculinity in Ancient Greek and Roman Society and the Ideals of Masculinity in the American Black Community

**Srijith Kambala**

Mentored by Stephen Spann and Ana Corral

Family Medicine

Integrating Social Care in Healthcare Approaches – A Scoping Review and Cost-Benefit Analysis

**Alexander Kerry**

Mentored by Abdel Razzaq Takriti

History

My People Will Not Die: Staging the Revolution/ary in Palestinian Resistance Theater

**Danial Khan**

Mentored by Andreas Mang

Mathematics

Stein Variational Gradient Descent

**Aditi Kashinath Khareedhi**

Mentored by Patrick Slater

Austin Ear Clinic

The Injurious Association Between Traumatic Brain Injuries and Perichondrial Hematomas

**Lacey Knowles**

Mentored by Ferenc Bunta

Communication Sciences and Disorders

Bilingual Phonological Acquisition with Cochlear Implant Use: A Comparison of Vowel Production with Normal Hearing Peers

## Borna Koohbor

Mentored by Edgar Bering and Andrew Renshaw  
Physics

Reflective Properties of Aerosols Relative to Environmental Factors

## Gabrielle Kostecki

Mentored by Colin Haile  
Psychology

Fentanyl vaccine prevents opioid overdose in rats

## Owen Lartson

Mentored by Sebastian Lecourt  
English

Transgendering the Gothic: Unearthing Transgender Lived Experience and Reappropriating Abjection in Gothic Texts

## Gabrielle Lea

Mentored by Chandra Mohan  
Biomedical Engineering

The Identification of Urinary Proteins as Markers of Disease Activity in Childhood-onset SLE

## Preston Lee

Mentored by Bonner Leaders Program  
Honors College

Evaluating the Effectiveness of a Math Mentoring Program on Underserved 7th-Grade Students in HISD

## Chloe Levy

Mentored by Caryn Tamber-Rosenau  
Modern and Classical Languages

Two Fawns and the Figure of Desire

## Chloe Levy

Mentored by Lorena Gauthereau  
Arte Público Press

Latina Beauty Queens

## Jay J. T. Lim

Mentored by Ognjen Miljanic  
Chemistry

Aromatic Guest Incorporation in Naphthalene-Based Cyclotetrazabenzil Host

## Bryan Luna

Mentored by Gangbing Song  
Mechanical Engineering

Study of a Single-Sided Pounding Tuned Mass Damper for Vibration Control on a Cantilevered-Pipe System

## Lauren Lyles

Mentored by Julie Dunsmore  
Psychological, Health, & Learning Sciences

YouTube Kids: Understanding Gender and Emotion through Modern Media

## Maria Jose Macias Zuniga

Mentored by Hanako Yoshida  
Psychology

Early Joint Attention and Its Influence on Socio-Emotional Development and Language Skills

## Naveera Majid

Mentored by David Womble  
English

"What will people say?": An Autoethnographic Look into Desi Women, Voice-Finding, and Not Living for Others

## Ehson Maleki

Mentored by Benjamin Deneen  
Neurosurgery, Baylor College of Medicine

Ventral Spinal Astrocyte Reactivity is Context Dependent on Nkx6.1

## Manuel Martinez

Mentored by Vivien Coulson-Thomas  
Optometry

The Role of the Extracellular Matrix in Regulating Corneal Angiogenesis and Lymphangiogenesis

## Stephanie Masterson

Mentored by Mark Sursavage and Johnathan Richards  
UH Writing Center

Evaluating Undergraduate History Writing Objectives, Expectations, and Perceptions

## Allen Mathew

Mentored by Kamran Alba  
Mechanical Engineering Technology

Creating Instrumentation To Test Opto-Mechanical Properties Of Hydrogel For Use In Cataract Surgery

## Gisela Mathew

Mentored by Hanako Yoshida and Lichao Sun  
Psychology

HR-ASD Infants' Social Attention and Neural Activity during Parent-Child Play

## Rael Memnon

Mentored by Petra Den Hollander  
MD Anderson Cancer Center

Investigating the Chemosensitizing Effect of p38 MAPK inhibition in a TNBC cell model

## Jarely Mendez

Mentored by Francisco Gomez  
Geological Sciences, University of Missouri

LiDAR Drone Surveying near Rio El Tambor to study the 1976 earthquake of the Motagua Fault in Guatemala

## Isha Merchant

Mentored by Laura Bland  
History, Honors College

The 'Item Song' and Community within the South Asian Diaspora in the United States



**Devanshi Mistry**

Mentored by Michael Zvolensky  
Psychology

The Role of Pain Avoidance in the Relation Between Pain Intensity and Smoking Cessation Processes

**Aashna Momin**

Mentored by Venkatesh Balan  
Engineering Technology

Extracting Mushroom Polysaccharides for Intended Benefits of Immunostimulation and Therapeutic Uses

**Karina Montero**

Mentored by Kirill Larin and Yogeshwari Ambekar  
Biomedical Engineering

Neural Tube Imaging using Brillouin Spectroscopy and Optical Coherence Tomography

**Akhil Mulgaonker**

Mentored by José Angel Hernández  
History

Shivaji: The Many Dreams for a Maratha King, 1818 – 2003

**Erin Myers**

Mentored by Jesse Rainbow  
Religious Studies, Honors College

First Enoch: "The Apocalypse of Weeks" as Prophecy

**Paola Najera**

Mentored by Richard Meisel  
Biology and Biochemistry

Ectopic expression of ovary expressed polo transcripts and duplicates in *Drosophila melanogaster* testis creates female-biased sex ratios

**Dan Nguyen**

Mentored by Clayton Neighbors and Joann Angosta  
Psychology

What Roles do Depression and Stress Play in Suicidal Thoughts?

**David Nguyen**

Mentored by Yaxin Wang and Victor Tedesco  
Texas Heart Institute

Study of Passive and Active Magnetic Levitation Bearings for Implementation in Pediatric Left Ventricle Assistant Device

**Emily Nguyen**

Mentored by Shoujun Xu  
Chemistry

Acoustic Radiation Force and Noncovalent Bonds

**Kim Nguyen**

Mentored by Christina Miyawaki  
Graduate College of Social Work

Development of a Community-Engaged Dementia Education Program for the Houston Vietnamese American Community

**Kim Nguyen**

Mentored by Hanako Yoshida  
Psychology

Infant Sustained Attention During Parental Gesture

**Minh Khue Nguyen**

Mentored by Kerri Crawford and Scott Clark  
Biology and Biochemistry

A native *Coreopsis* variant competes more strongly against the invasive *Verbena brasiliensis*

**Minh Ngoc Nguyen**

Mentored by Gul Zerze  
Chemical and Biomolecular Engineering

A computational investigation of folding free energy surfaces and structural characterization of Staphylococcal Protein A

**Ngoc Nguyen**

Mentored by Thomas Teets  
Chemistry

Azide addition in Iridium carbodiimide complex

**Theresa Nguyen**

Mentored by Alexander Statsyuk  
Pharmacological and Pharmaceutical Sciences

A General Approach to Kinase Inhibitors

**Miracle Ofomaja**

Mentored by Mehmet Orman  
Chemical and Biomolecular Engineering

Characterizing Z-rings in Persister Cells

**Javier Padron**

Mentored by Loi Do and Abhipsa Srimani  
Chemistry

Bio-Inspired Tishchenko Reaction

**Kimeera Paladugu**

Mentored by Chandra Mohan  
Biomedical Engineering

The Diagnostic Potential of Stool Proteins Outperforms Plasma Proteins in Inflammatory Bowel Disease

**Shaiza Pasha**

Mentored by Greg Morrison and Erez Aiden  
Physics; Baylor College of Medicine

Dual Cross-Linking Improves Ability to Map Chromatin Loops

**Lillian Pennington**

Mentored by Erin Kelleher and Llewellyn Green  
Biology and Biochemistry

Mapping Irradiation Sensitivity in *Drosophila melanogaster*

**Catherine Pham**

Mentored by William Frankino  
Biology and Biochemistry

The Evolutionary Relationship Between Size and Shape

**Vivienne Pham**

Mentored by Andrew Kapral and Ioannis Konstantinidis  
Data and Society, Honors College

Investigating the Deciding Factors of the Location of a Food Distribution

**Aryana Pourmotamed**

Mentored by Sheereen Majd  
Biomedical Engineering

Fabrication and Characterization of GelMA Filled Nanoliposomes for Delivery Applications

**Sakina Quaid**

Mentored by Martin Nunez and Romina Dimarco  
Biology and Biochemistry

Health impact of native and non-native invasive mosquitoes: the case of Aedes aegypti

**Laila Rahman**

Mentored by Donaji Stelzig  
Community Health Worker Training Center, Honors College

Lived Experiences Of The Financial Burden Of Period Poverty On Latinas In Texas

**Claudia Ramirez**

Mentored by Ferenc Bunta  
Communication Sciences and Disorders

Phonological Processes Produced by Spanish-English Bilingual Children who Have Hearing Loss and Use Cochlear Implants Compared to their Normal Hearing Peers

**Victoria Rances**

Mentored by Justin Coates  
Philosophy

The CRISPR Dilemma: A Philosophical Analysis of Michael Sandel's Argument Against Genetic Engineering

**Saron Regassa**

Mentored by Mary Manning  
Special Collections, UH Libraries

Forged Through Protest - History of Afro Americans for Black Liberation

**Alfonso Reyes**

Mentored by Margot Backus  
English

Writing What You Know, Not Just What You Are: LGBTQ+ & POC Representation in 21st Century Literary Fiction

**Sarah Rizvi**

Mentored by Luis Medina and Michelle Martinez  
Psychology

The Role of Caregiver Burden On Cognition in Older Adult Care Receivers

**Lillian Roelofs**

Mentored by Mario Romero-Ortega  
Biomedical Engineering

Representation Learning for Feature Analysis in Synthetic Neuronal Signals

**Carla Romero**

Mentored by Kerri Crawford and Scott Clark  
Biology and Biochemistry

Suppression of native plant by invasive Verbena brasiliensis increases with soil fertility.

**Alexis Ruiz**

Mentored by Meghna Trivedi  
Pharmacy Practice and Translational Research

Venetoclax Decreases Cell Clusters in TNBC Cells

**Jason Ruszkowski**

Mentored by Edgar Bering and Andrew Renshaw  
Physics

Sampling Microplastics and Extremophile Organisms on Balloon Borne Payloads

**Miranda Ruzinsky**

Mentored by Manuel Gutiérrez  
Hispanic Studies

Spanish in Relation to Socioeconomic Status Over Time in America

**Sachiko Sakai**

Mentored by Shuhab Khan  
Earth and Atmospheric Sciences

Study of sand dunes and coastal erosion at Mustang Island and North Padre Island

**Amna Saleem**

Mentored by Natalia Zhivan  
Economics

Assessing Changes in Healthcare Utilization among Various BMIs in the United States After the AMA's Decision in 2013 to Declare Obesity a Chronic Disease

**Ritu Sampige**

Mentored by Leslie Frankel and Julie Dunsmore  
Psychological, Health, & Learning Sciences

Mismatch Between Perceived and Objective Indices of Infant Vulnerability: NICU Status and Parental Mental Health

**Génesis Santillán**

Mentored by Rex Koontz  
Art History

The Ancient Colors in the Public Art of Tenochtitlán



**Erin Satterwhite**

Mentored by Sandra Zalman  
Art History  
Dorothy Hood

**Emily Schubert**

Mentored by Marc Hanke  
Biology, Honors College  
Pathogenic *Perkinsus marinus* Frequency in Consumable Oysters Used in Reef Restoration

**Risha Sethi**

Mentored by Alexey Golubev  
History  
Feminism in the Bolshevik Revolution

**Nathan Seto**

Mentored by Robert Comito and Zipeng Gu  
Chemistry  
Synthesis of an Asymmetric Imine/bis(pyrazolyl)alkane Ligand

**Aliasghar Shariff**

Mentored by Tian Chen  
Mechanical Engineering  
Bi-Stable Lithography

**Neha Sherif**

Mentored by Megan Robertson  
Chemical and Biomolecular Engineering  
Epoxidation and Curing of Bio-Renewable para-Coumaric Acid

**Pranjal Sheth**

Mentored by Lu Dai  
Pharmacy  
Traumatic Brain Injury Therapeutics Progress

**Amna Siddiqui**

Mentored by Mark Sursavage  
UH Writing Center  
Process vs. Product Classes in English Literature: Students' and Professors' Perspectives on Teaching Writing

**Anique Siddiqui**

Mentored by Bradley McConnell  
Pharmacological and Pharmaceutical Sciences  
Biased Agonism at the Angiotensin II Type 1 Receptor

**Aaron Smith**

Mentored by Marc Hanke and Jenny Oakley  
Biology, Honors College; University of Houston - Clear Lake  
Oysters on the Menu: Wildlife Interactions with the Oyster Sun Curing Process

**Anna So**

Mentored by Andrew Kapral and Dan Price  
Data and Society, Honors College  
Determining the Effects of Limited Transportation on Heart Disease Prevalence

**Ali-Rayhaan Soonasra**

Mentored by Kirill Larin  
Biomedical Engineering  
The Effect of Alcohol and Cannabinoids on the Microvasculature in Embryonic Brain

**Elizabeth Spencer**

Mentored by Dustin Gish  
Phronesis, Honors College  
Understanding History through a Musician's Perspective: Contextualizing the Works of Dmitri Shostakovich

**Andres Tello**

Mentored by Debbie Harwell  
History  
"Call me Mr. Zhang." A Historical Fiction Short Story By Andrew Tello

**Victoria Teoh**

Mentored by Marc Hanke  
Biology, Honors College  
Microplastic Accumulation in the South and North Shores of Maui, Hawai'i

**Nga Thai**

Mentored by Chandra Mohan and Yaxi Li  
Biomedical Engineering  
ELISA Validation of Novel Biomarkers of Lupus Nephritis Discovered Using O-link Proximity Extension Assay

**Ian Thompson**

Mentored by Richard Armstrong  
Modern and Classical Languages  
Women's Political Agency: Vestal Virgins, Livia, and the First Ladies of the U.S.

**Nicholas Tijerina**

Mentored by Bo Zhao  
Mechanical Engineering  
Designing High-Efficiency Thermophotovoltaics by Recycling Below-Bandgap Photons Through High Reflectivity

**Tela Todd**

Mentored by Jerome Crowder  
Social and Behavioral of Sciences  
Examining Harris County's Flawed Child Abuse and Neglect Investigations and Their Outcomes

**Chloe Tondera**

Mentored by Marzia Cescon  
Mechanical Engineering  
Autonomous Crazyflie Drones

**Hoang Tran**

Mentored by Mario Romero-Ortega, Farial Rahman, and Zuha Yousuf  
Biomedical Engineering  
Investigation of LRG-I as A Biomarker For Stress Urinary Incontinence In A Rabbit Model

**Olivia Tran**

Mentored by Andrew Kapral  
Data and Society, Honors College

The Effects of Language and Economic Status on  
Healthcare Access and Care Partnership in Families of  
Children with Special Health Needs

**Thai Tran**

Mentored by Ben King  
Health Systems and Population Health Sciences

Dual Systematic Review Characterizing the Relationship  
Between Homelessness and Infectious Diseases

**Tung Tran**

Mentored by William Widger  
Biology and Biochemistry

Fluorescence assay to monitor dormancy in *M. luteus*.

**Morgan Trapp**

Mentored by Vivien Coulson-Thomas  
Optometry

Effects of Hyaluronic Acid on Salivary Glands of Adult and  
Aged Mice

**Eva Trevino**

Mentored by Paul Ruchhoeft and Dmitri Litvinov  
Electrical and Computer Engineering

Development of Magnetic Nanoparticles for Lateral Flow  
Assays using Atom Beam Lithography

**Michael Trujillo**

Mentored by Claudia Ratti  
Physics

Quantifying the Uncertainty on the Location of the  
Holographic Critical Point

**Khiem Truong**

Mentored by Ben King  
Health Systems and Population Health Sciences

Systematic Review of the Lower Perceived Access to Care  
Among Populations Experiencing Homelessness

**Ekta Upadhyay**

Mentored by Sanghyuk Chung  
Biology and Biochemistry

TRAF4 has potential interaction with E7 oncogene in  
HPV+ Cervical Cancer Cells

**Leon Valades**

Mentored by Kenneth Brown  
Comparative Cultural Studies

Ceramic Analysis in Atzompa: Maintaining a millennium  
old tradition in Zapotec utilitarian ceramics

**James Valentine**

Mentored by Gangbing Song  
Mechanical Engineering

Verification of Solenoid-Enabled Percussion to Monitor  
Bolted Structures with Neural Network and Support  
Vector Machine Classifiers

**Ana Vallejo**

Mentored by Rajkamal Vasu  
Finance

Financial Documents Reported During The Blue Sky Laws

**Nathan Varghese**

Mentored by Jeffrey Rimer and Adam Mallette  
Chemical and Biomolecular Engineering

Chabazite Zeolite Synthesis Using Inorganic Structure-  
Directing Agents

**Johanna Villagomez**

Mentored by Guoquan Wang  
Earth and Atmospheric Sciences

Using GPS to Monitor Subsidence and Faults in the  
Greater Houston Area

**Andres Villarreal**

Mentored by Denise Reyes  
Psychology

Organizational Diversity and External Recognition

**Alyson Vu**

Mentored by Meghana Trivedi and Fatima Merchant  
Pharmacy Practice and Translational Research;  
Pharmacological and Pharmaceutical Sciences; Engineering  
Technology

Investigating Cellular Patterning of Breast Cancer Cells  
with ADGRF1 Overexpression or Activation on Novel  
Micropatterned Substrates

**Tracy Vu**

Mentored by Xinli Liu  
Pharmacological and Pharmaceutical Sciences

Fabrication of lipophilic drug-loaded microneedles

**Iva Wagner**

Mentored by Mehmet Orman  
Chemical and Biomolecular Engineering

Z-Rings as a Biomarker in Persister Resuscitation

**Elisabeth Walla**

Mentored by Michael Zvolensky  
Psychology

Perception of Stigma in Medical Settings During  
COVID-19: The Role of Sex Differences Among Latinos

**Esraa Wasel**

Mentored by Iain Morrison  
Philosophy, Honors College

Moral Encroachment and Moral Reasons For and Against  
Withheld Belief



**Katherine Wong**

Mentored by Vaughn Climenhaga  
Mathematics

Hyperbolicity of Surfaces with Positive Curvature

**Sarah Wong**

Mentored by Jeff Feng  
Industrial Design

Developing a Headset Integrating Vision Testing and VR  
with EEG Scan

**Ameer Zaman**

Mentored by Vlad Sandulache  
Otolaryngology, Baylor College of Medicine

GPX-2 Protein Synthesis Using Recombinant E. Coli

**Jenna Zamil**

Mentored by Samina Salim  
Pharmacological and Pharmaceutical Sciences

Breast Cancer Awareness, Screening Attitudes, and  
Biochemical Profile in a Sample of Houston-Based Afghan  
Refugee Women

**Mielad Ziaee**

Mentored by Andrew Kapral  
Data and Society, Honors College

Evaluating Food Security and Summer Meal Access in  
Harris County

**Noor Zughaibi**

Mentored by Vincent Tam and Brianna Eales  
Pharmacy Practice and Translational Research

Iron Supplementation's impact on Deferiprone inhibited  
Acinetobacter baumannii



## GROUP PRESENTATIONS

### **Raina Abraham, Eunice Alvareng, Sampada Gokhale, and Tonia Malayil**

Mentored by Yaping Wang  
Industrial Engineering

Your Timeless Celebration

### **Adeola Adeleye and Hadil Elldakli**

Mentored by Weiyi Peng  
Biology and Biochemistry

Real-Time Monitoring of T-Cell Function to Identify Tumor Evasion Mechanisms

### **Oluwadurotimi Agbesanwa, Dana Khalil, and Moses Tovias**

Mentored by Jose Contreras-Vidal  
Electrical and Computer Engineering

Your Brain on Art: Neurodynamics of Art Appreciation

### **Ishmam Alam and Diana Canales**

Mentored by Nancy Young  
History

Sharing Stories from 1977: The National Women's Conference

### **Natalie Allen, Leonardo Rabago, and Lizbet Valdez**

Mentored by Megan Robertson  
Chemical and Biomolecular Engineering

High-Throughput Tuning of Methacrylic-Acid-Based Hydrogels with Calcium and Chitosan as Secondary Ionic Cross-Linkers

### **Briana Azad, Brandt Bechtel, Tiffany Bui, and Tiffani Than**

Mentored by Bonner Leaders Program  
Honors College

The Effects of Science Mentorship on Student Confidence

### **Lucinda Ba, Mariyah Khan, Nmesomachukwu Ukachi-Nwata, and Olivia Tran**

Mentored by Cindy Paz  
Honors College

CHW- Community Partnered Health Fairs to Increase Healthcare Access for Residents of 77031 Zip Code

### **Ayesha Baloch, Shane Forman, and Hira Qazi**

Mentored by Bonner Leaders Program  
Honors College

Is Mentee Academic Self-Confidence Level a Valid Measure of an Online Tutoring Programs' Effectiveness at KIPP Sunnyside High School?

### **Rachel Banh, Rea Rose Estrada, and Annie Huynh**

Mentored by Tian Chen  
Mechanical Engineering

Synthesizing Liquid Crystal Elastomers

### **Abraham Baqdounes, Elizabeth Richardson, Jerardo Sanchez, and Jonathan Ventura**

Mentored by Yaping Wang and Nate Wiggins  
Industrial Engineering

Reducing First-Case Surgery Delays

### **Miriam Bautista and Juletsi Zuniiga-Juarez**

Mentored by Norah Gharala  
History

The Global Connections Created by the Galleon Trade and Roman Catholicism

### **Surya Bhat, Zahra Bhattacharya, and Bryan Armbruster**

Mentored by Bonner Leaders Program  
Honors College

Assessing Changes of a Third Ward Food Pantry Exiting the COVID-19 Pandemic: A Retrospective Study

### **An Bui, Natalie Copeland, and Hasan Nooruddin**

Mentored by Erin Kelleher  
Biology and Biochemistry

Let's Talk About Bruno: Using QTL Mapping and CRISPR HDR to Uncover Causative Variants of Differences in Dysgenic Sterility in *Drosophila melanogaster*.

### **Gustavo Chavez, Jose Lara, and Patrick Redmond**

Mentored by Mahdi Safa  
Civil and Environmental Engineering

Artificial Gecko Skin: Harnessing the Power of Vander Waals Force in Shear Systems

### **Siboney Cruz, Racquel Dorsey, Chidinma Elechi, Brian Felder, Haidia Khan, and Jordan Pemberton**

Mentored by Laura Lee  
College of Education

Bridging the Gap College of Education Summer Bridge Program

### **Anthony Dang, Thieu Le, Tom Le, and Jalen Jordan**

Mentored by David Mayerich  
Electrical and Computer Engineering

Visualizing Microscopic Tissues and Vessels Through Unreal Engine 5



**Vyshnavi Davuluri, David Hartman, and Tony Trabulsi**

Mentored by Andrew Kapral  
Data and Society, Honors College

PEERS: Evaluation of an Undergraduate-Led Near-Peer Community Health Mentorship Program

**Rowan Dempsey and Haadi Hasan**

Mentored by Peggy Lindner  
Information and Logistics Technology

SYRIOS

**Kristin Dinh and Ronald Thomas**

Mentored by Rosenda Murillo  
Psychological, Health, & Learning Sciences

Gender Disparities in the Association between Food Insecurity and Psychological Distress among US Adults

**Kristin Dinh, Neha Joshi, Ngoc-Trang Adrienne Nguyen, and Veena Vinod**

Mentored by Bonner Leaders Program  
Honors College

Evaluating the Effectiveness of the Aspire Program for Improving Student SAT Scores Before, During, and After COVID-19

**Tracy Do and Marcel Gugala**

Mentored by Stacey Gorniak  
Health and Human Performance

Does Bounceless Provide an Effective Alternative for Sport-Bras for Women Who Have a Larger Than "C" Cup Size

**Alicia Dykema, Joshlyn Mendez, and Aliasghar Shariff**

Mentored by Edgar Bering  
Physics

Auroral Spectroscopy

**Katherine Galland and Kelly Montano**

Mentored by Debbie Harwell and Todd Romero  
History

Resilient Houston: Documenting Hurricane Harvey

**Emma Garcia and Sehrish Gull**

Mentored by William Frankino  
Biology and Biochemistry

Pattern and Relative Rate of Size and Shape Evolution

**Alejandra Gomez and Matthew Tao**

Mentored by Melody Li  
Modern and Classical Languages

OER Textbook: Be a Tech Advanced Cultural Learner

**Justin Green, Gerald Merino, Mohammad Moaddab and Sarah Semmel**

Mentored by J. Leigh Leasure  
Psychology

Neuroprotective Effects of Exercise on Binge Alcohol-Induced Brain Damage

**Oscar Jones and Sadek Syed**

Mentored by Jose Contreras-Vidal  
Electrical and Computer Engineering

How Nature Improves Your Health: A Systematic Review

**Neja Joshi and Samiha Zaman**

Mentored by Andrew Kapral  
Data and Society, Honors College

The Effect of STEM-Focused High School Education on Texas Student Outcomes

**Evelyn Martinez, Joel Osegueda, Rianna Skaria, Anna Wilson**

Mentored by Brigitte Dauwaulder  
Biology and Biochemistry

The Role of the USP Receptor in the BBB for Drosophila Male Courtship

**Matthieu Matthieu, Minh Nguyen, and Celine Saidy**

Mentored by Edgar Bering  
Physics

Gaseous Compounds: Measuring the Composition of Trace Gases in Earth's Atmosphere

**Jose Medina, Emily Navarro, and Jesus Zendejas**

Mentored by Jose Contreras-Vidal  
Electrical and Computer Engineering

Your Brain on Art

**Amina Meliani and Zayda Umana**

Mentored by Melika Shirmohammadi  
Human Development and Consumer Sciences

Career and Higher Education Experiences of Refugees in the United States: Challenges, Enablers, and Strategies

**Daniel Prejean and Nikolai Sardo**

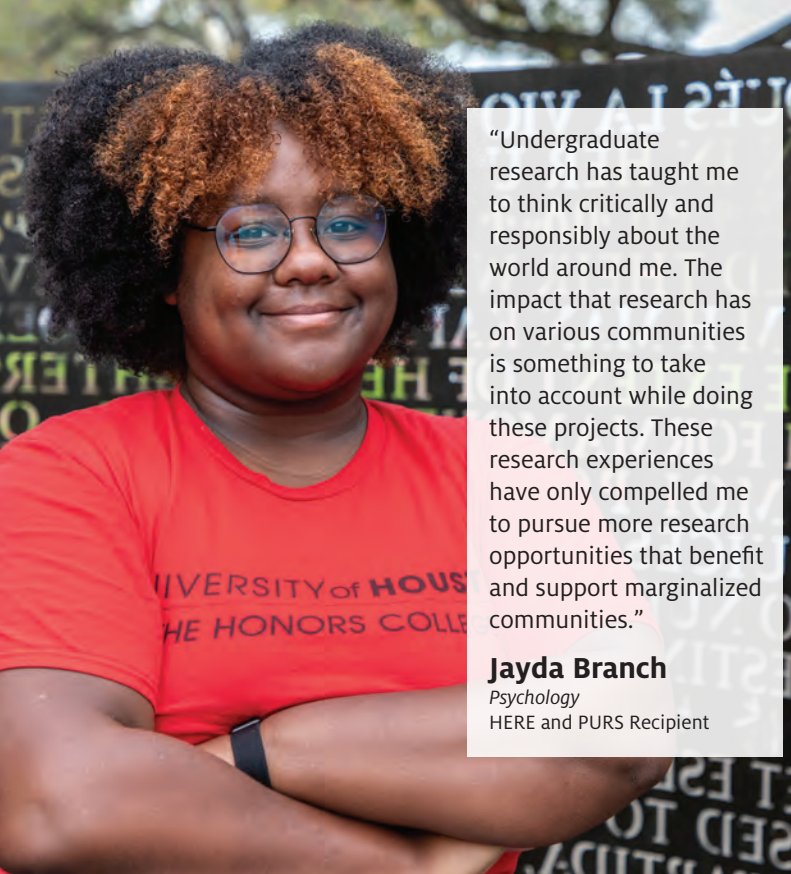
Mentored by Edgar Bering  
Physics

Detecting Radio Distortion in the Ionosphere by use of a High Power High Frequency Transmitter





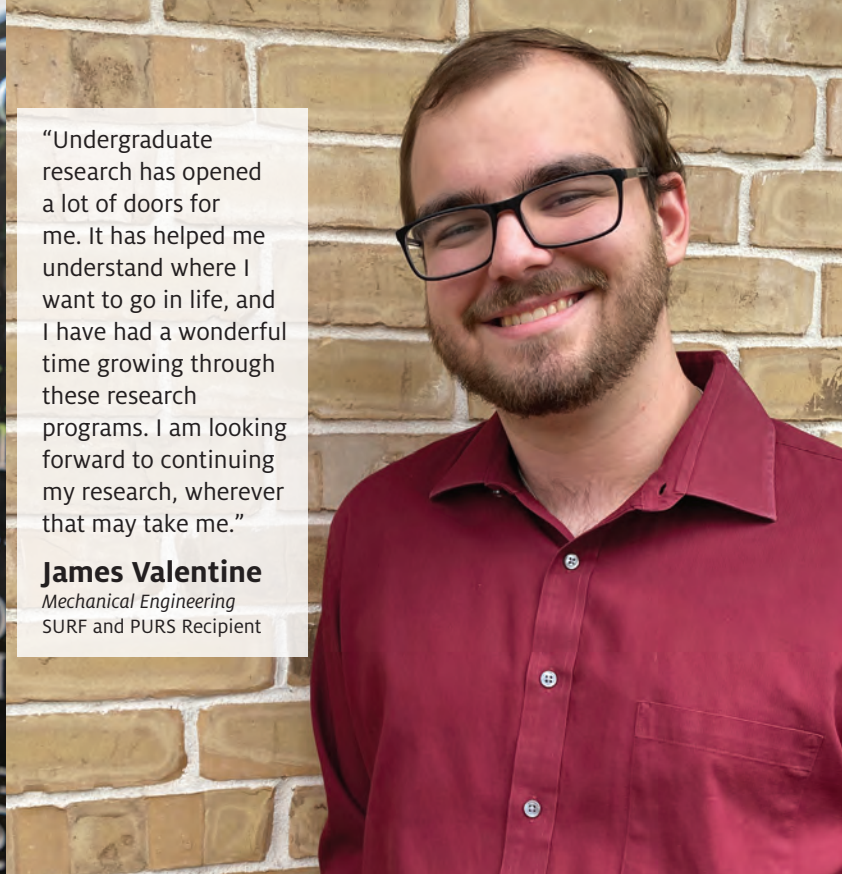




"Undergraduate research has taught me to think critically and responsibly about the world around me. The impact that research has on various communities is something to take into account while doing these projects. These research experiences have only compelled me to pursue more research opportunities that benefit and support marginalized communities."

**Jayda Branch**

*Psychology*  
HERE and PURS Recipient



"Undergraduate research has opened a lot of doors for me. It has helped me understand where I want to go in life, and I have had a wonderful time growing through these research programs. I am looking forward to continuing my research, wherever that may take me."

**James Valentine**

*Mechanical Engineering*  
SURF and PURS Recipient

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**Gabrielle Kostecki**

*Mathematical Biology*  
Amgen Scholar and SURF,  
PURS, BURS Recipient



"Undergraduate research has given me confidence in my work that I didn't have before. I didn't think I had a place in academia outside of earning my degree, but research at this stage has taught me how to ask questions and contribute to a conversation, no matter how obscure the research topic seems at first."

**Owen Lartson**

*English*  
PURS Recipient and Mellon  
Research Scholar



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